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ANNUAL REPORTS

OF VARIOUS

PUBLIC OFFICERS AND INSTITUTIONS

FOR THE YEAR

1908.

PUBLISHED BY THE SECRETARY OF THE COMMONWEALTH.

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10

10

10

INDEX TO PUBLIC DOCUMENTS.

SERIES 1908.

VOL. I.

	Doc. No.
Report of the Secretary of the Commonwealth, . . .	46
Report of Treasurer and Receiver General, . . .	5
Report of Auditor of the Commonwealth, . . .	6
Report of Attorney-General,	12

VOL. II.

Report of Tax Commissioner,	16
Aggregates of Polls, Property and Taxes, etc., . . .	19
Abstract of Certificates of Corporations,	10
Report of Controller of County Accounts,	29

VOL. III.

Report of State Board of Charity,	17
Report of State Board of Insanity,	63
Report of Trustees of the Danvers Insane Hospital, . . .	20
Report of Trustees of the Northampton State Hospital, . .	21
Report of Trustees of the Taunton Insane Hospital, . . .	22
Report of Trustees of the Worcester Insane Hospital, etc., .	23
Report of Trustees of the State Hospital at Tewksbury, . .	26
Report of Trustees of the Westborough Insane Hospital, . .	30
Report of Trustees of the Foxborough State Hospital, . . .	47
Report of Trustees of the Medfield Insane Asylum, . . .	59

	Doc. No.
Report of Trustees of the Massachusetts State Sanatorium at Rutland,	61
Report of Trustees of the Massachusetts Hospital for Epilep- tics at Monson,	62
Report of Trustees of the State Colony for the Insane at Gardner,	70

VOL. IV.

Report of State Board of Health,	34
Report of Board of Registration in Medicine,	56
Report of Board of Registration in Dentistry,	38
Report of Board of Registration in Pharmacy,	39
Report of Metropolitan Water and Sewerage Board,	57

VOL. V.

Report of Board of Railroad Commissioners and Returns of Railroad Corporations,	14
Report of Board of Gas and Electric Light Commissioners,	35

VOL. VI.

Report of Bank Commissioner (Part I. — Savings Banks, Institutions for Savings, Trust Companies and Foreign Banking Corporations. Part II. — Co-operative Banks, Collateral Loan Companies, Mortgage Loan and Invest- ment Companies),	8
--	---

VOL. VII.

Report of Insurance Commissioner (Part I. — Fire and Marine. Part II. — Life, Miscellaneous, Assessment and Fraternal),	9
Report of Commissioners of Firemen's Relief Fund,	64

VOL. XI.

Doc. No.

Report of Births, Marriages and Deaths, with Statistics of Divorce, and of Deaths investigated by the Medical Exam- iners,	1
Report of Bureau of Statistics of Labor,	15
Report of Statistics of Manufactures,	36
Returns of Number of Assessed Polls, Registered Voters, etc.,	43
Comparative Financial Statistics of Cities and Towns, . . .	79
Report of State Free Employment Offices,	80

VOL. XII.

Report of Librarian of the State Library,	3
Report of Board of Harbor and Land Commissioners, . . .	11
Report of Commissioners on Fisheries and Game,	25
Report of Commissioners of Nautical Training School, . .	42
Report of Free Public Library Commission,	44
Report of Metropolitan Park Commission,	48
Report of Commissioner of Public Records,	52
Report of Civil Service Commission,	53
Report of Massachusetts Highway Commission,	54
Report of Wachusett Mountain State Reservation Commis- sion,	65
Report of Commissioners on War Records,	66
Report of Greylock Commission,	67
Report of State Board of Publication,	69
Report of Charles River Basin Commission,	71
Report of Board of Registration in Veterinary Medicine, .	72
Report of Board of Registration in Embalming,	75
Report of Licensing Board for the City of Boston, . . .	74
Report of Commission on Hospitals for Consumptives, . .	77
Report of Wrentham State School,	78
Report of Commissioner of Weights and Measures, . . .	83

SEVENTY-SECOND ANNUAL REPORT
OF THE
BOARD OF EDUCATION:
TOGETHER WITH THE
SEVENTY-SECOND ANNUAL REPORT
OF THE
SECRETARY OF THE BOARD,
1907-1908.

JANUARY, 1909.

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1909

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CONTENTS.

	PAGE
I. — MEMBERS AND APPOINTEES OF THE BOARD OF EDUCATION,	5
II. — REPORT OF THE BOARD OF EDUCATION,	9-14
III. — REPORTS OF THE STATE NORMAL SCHOOLS,	15-71
Bridgewater,	17-22
Fitchburg,	23-28
Framingham,	29-32
Hyannis,	33-37
Lowell,	38-42
North Adams,	43-50
Salem,	51-56
State Normal Art,	66-70
Westfield,	57-60
Worcester,	61-65
Statistical,	71
IV. — SECRETARY OF THE BOARD, REPORT OF,	72-156
High school attendance,	79, 80
School hygiene,	81-127
Summary of statistics,	73-79
V. — FINANCIAL STATEMENTS,	157-170
VI. — REPORT OF JOHN T. PRINCE, AGENT OF THE BOARD, "SCHOOL ORGANIZATION AND SUPERVISION, ETC.,"	173-192
VII. — REPORT OF JAMES W. MACDONALD, AGENT OF THE BOARD, "LANGUAGE INSTRUCTION IN THE HIGH SCHOOLS OF MASSA- CHUSETTS,"	193-256
VIII. — REPORT OF JULIUS E. WARREN, AGENT OF THE BOARD, "INDUS- TRIAL EDUCATION IN THE PUBLIC SCHOOLS,"	257-265
IX. — REPORT OF FREDERIC L. BURNHAM, AGENT OF THE BOARD FOR THE PROMOTION OF MANUAL ARTS, "SUPERVISION AND THE TEACHING OF THE MANUAL ARTS IN THE HIGH SCHOOLS,"	267-296
X. — "INDUSTRIAL EDUCATION AND THE PUBLIC SCHOOLS," AN AD- DRESS BY GEORGE H. MARTIN, SECRETARY OF THE BOARD,	297-316

	PAGE
XI.—REPORT OF VISITS TO NORMAL SCHOOLS IN OTHER STATES, BY JOHN G. THOMPSON, PRINCIPAL, FITCHBURG STATE NORMAL SCHOOL,	317-328
XII.—AN OUTLINE IN ELEMENTARY GEOGRAPHY, BY BRENELLE HUNT, PRINCIPAL, STATE MODEL SCHOOL AT BRIDGEWATER STATE NORMAL SCHOOL,	329-353
XIII.—REPORT ON SPECIAL SCHOOLS FOR DEAF, BLIND AND FEEBLE- MINDED, COMPILED BY JOHN T. PRINCE,	355-394
XIV.—COUNTY (TRUANT) TRAINING SCHOOLS,	395-399
XV.—ABSTRACT OF SCHOOL COMMITTEES' RETURNS FOR 1907-08, .	i-cxx
XVI.—INDEX,	cxxi-cxxxii

1909.

EX OFFICIIS.

HIS EXCELLENCY EBEN S. DRAPER, *Governor.*

HIS HONOR LOUIS A. FROTHINGHAM, *Lieutenant-Governor.*

BY APPOINTMENT.

THOMAS B. FITZPATRICK,	. Brookline,	. May 25, 1909.
FREDERICK P. FISH, ¹	. Brookline,	. May 25, 1910.
JOEL D. MILLER,	. Leominster,	. May 25, 1911.
KATE GANNETT WELLS,	. Boston,	. May 25, 1912.
CLINTON Q. RICHMOND,	. North Adams,	. May 25, 1913.
GEORGE I. ALDRICH,	. Brookline,	. May 25, 1914.
ELLA LYMAN CABOT,	. Boston,	. May 25, 1915.
ALBERT E. WINSHIP,	. Somerville,	. May 25, 1916.

SECRETARY.

GEORGE H. MARTIN, Boston.

CLERK AND TREASURER.

C. B. TILLINGHAST,² Boston.
GEORGE H. MARTIN, *Acting Clerk and Treasurer,* . Boston.

AGENTS.

JOHN T. PRINCE, West Newton.
JAMES W. MACDONALD, Stoneham.
JULIUS E. WARREN, Worcester.
FREDERIC L. BURNHAM, Cambridge.

Agent for the Promotion of Manual Arts.

CLERICAL ASSISTANTS.

AGNES CAROLINE BLAKE, *Chief Clerk.* ESTHER E. ELWELL.

GEORGE H. VARNEY.

¹ Appointed March 10, 1909, to succeed Carroll D. Wright, deceased, who was appointed June 30, 1908, to succeed Caroline Hazard, resigned.

² Deceased, April 28, 1909.

ANNUAL REPORT

OF THE

BOARD OF EDUCATION.

ANNUAL REPORT.

The Board of Education has the honor to submit to the Legislature its seventy-second annual report. With this are submitted the reports of the several normal schools, the reports of the secretary and of the treasurer, and the abstract of the school returns which are required by law.

While the Board has large advisory powers over the general public school system, and has nominal direction of the instruction in the State schools for defective children, it is only over the normal schools that its control and responsibility are immediate and complete.

THE STATE NORMAL SCHOOLS.

In the 10 normal schools are 1,876 students and 129 teachers. The number of graduates in 1908 was 540. In the model and practice schools used by the normal students there are 5,088 pupils and 150 teachers.

In all their history the Board has striven to meet the advancing requirements of the public schools by sending from the normal schools teachers with high standards of scholarship and some practical experience.

Until recently it was thought that observation and practice in highly organized graded schools furnished ideal conditions for normal school students, and opportunities for such have been provided. Now it is seen that the graduates go out into the ungraded rural schools have to face conditions. In the effort to adjust themselves to the environment there is waste of time and strength, and the training counts for less than it ought.

In order to strengthen the schools at this time have been made with school authorities in the rural schools which some of their ungraded schools

mal students for observation and practice. The town furnishes the building and the children and pays towards the support of the school at the rate which its other schools cost. The Board of Education selects the teacher, adds to the town money for her salary, and supervises the work of the school, the purpose being to make it a model rural school.

Such an arrangement has been made between the normal school at Salem and the school committee of Marblehead, a school of 40 pupils in 6 grades being used.

The Framingham school has the use of an outlying school in the town of 23 pupils in 6 grades.

The Lowell normal school uses a school in North Tewksbury of 38 pupils and 8 grades.

The North Adams school has organized a school of two rooms in Clarksburg, having 80 pupils in 8 grades, and a school in Williamstown with 60 pupils and 5 grades.

At Bridgewater several ungraded schools are used by the normal students, but the union is not as close as in the other cases.

While this enlargement of opportunity has added somewhat to the expense of the normal schools, the Board feels that no part of its expenditure is yielding more ample returns.

INDUSTRIAL WORK IN THE NORMAL SCHOOLS.

When, in 1870, in response to the petition of manufacturers and business men, the Legislature directed that industrial drawing should form a part of the required work of the public schools, the Board undertook to meet the new demand by furnishing the best instruction possible to the students in the normal schools. This it has continued to do. When, later, manual training began to be recognized as a valuable element in education, the Board made provision for preparing teachers to undertake it. In all the schools the students have been taught the use of wood-working tools, and have constructed a good deal of simple apparatus needed for school purposes. Lately this work has been broadened.

Hyannis led by inducting its prospective teachers and the children in its model school into the simple industries common to the towns of its vicinity. It has used garden work, house

building and furnishing, housekeeping, hammock and basket making, poultry raising and cranberry growing to vivify all the school activities.

At North Adams the students have been taught cooking and sewing.

Nearly all the schools have added school gardening to their work, and at Lowell, where the graduates will mostly teach in cities, home and window gardening has been given prominence.

In addition to this general work, special provision is now made for three kinds of industrial work in these schools. Household arts and economics are cared for at Framingham in a special department; a department for training teachers of commercial branches has been opened this year at Salem; and, by arrangement with the Massachusetts Agricultural College, work in agriculture is to be done at North Adams. It is most significant that in each of these cases the opening of the courses has shown an unexpected demand. The household arts department at Framingham has grown more rapidly than the other departments. It was supposed that 25 was an outside limit for the number of students likely to undertake the new work at Salem, and provision was made for only that number. The class at opening in September of this year numbered 65. At North Adams with the starting of the new work this year the entering class has doubled.

THE NORMAL ART SCHOOL.

If the Normal Art School is to maintain its position and meet the needs of the times, it must have enlarged facilities for doing its work. It should be remembered that when the State, in response to public demand, undertook to lay a new foundation for its various industrial interests by the introduction of drawing into all the public schools and by opening evening classes in drawing for workmen in all the industrial centers, it established the Normal Art School, the first and still the only State school of the kind, to prepare teachers and directors for all these schools. It was intended to be a center of influence to reach all the manufacturing industries of the State. It was to hold a place in Massachusetts similar to that held by the

South Kensington Art School in England, and for that reason Mr. Walter Smith, a graduate of that school, was made its first principal. Because of the broad foundation on which it was built, it has been able to secure the services as instructors of able and distinguished men: its present accomplished and versatile principal, Mr. Bartlett, teacher, artist and craftsman; Cyrus E. Dallin, Joseph R. De Camp and other noted teachers and artists.

The graduates of the school have gone widely as instructors into public and private schools and directly as designers into the industries. Had there been maintained in connection with the school, as at South Kensington, a museum of industrial art, there is no doubt that the influence of the school as an industrial art center would have been greatly increased.

Now the school is cramped in its quarters, and is obliged to turn away large numbers of would-be students. It is impossible to meet in any adequate way the demand arising from the revival of interest in industrial education in this State.

As a school of industrial design, it needs rooms in which to illustrate the constructive side of the practical arts. The present building is used to its utmost limit, probably beyond the limit of health and safety.

Two years ago the Board presented to the Legislature a plan for enlargement of the plant and a request for an appropriation. This was not granted, and the intervening years have made the case still more urgent. The Board will this year renew its application for relief.

INDUSTRIAL EDUCATION IN THE PUBLIC SCHOOLS.

In any movement for the enlargement of educational activities it is sound public policy to utilize existing agencies to the fullest extent possible. The State is now face to face with this problem in connection with industrial education, and will probably have to face it in the near future in connection with higher technical and general education.

The time has come to consider whether the public high school system, which is now more complete than in any other State, should not be utilized so far as practicable, and without weak-

ening its influence for general education for the new forms of education in which the people are becoming interested.

If it is desirable to acquaint the young men and women of the State with those industrial processes upon which the life of the State depends; if it is desirable to imbue them with the spirit of productive industry, and lead them to respect and honor the life of the home, the shop and the farm; if it is desirable to fit for earlier usefulness the largest number possible of these young people, — then it would seem beyond doubt or cavil that the place to do this work most economically is where the youth now are, — 50,000 of them in the high schools.

To duplicate existing buildings and laboratories and faculties would only add to the expense with no gain to education.

By suitable additions and modifications, much of the new work could be done. In many of the larger schools this could be done with little additional expense. The smaller schools would need some State aid, but not much, and for this legislation may be necessary.

The practical question now is, Will the State encourage and assist these schools to undertake this enlargement of their usefulness?

When the high schools have done all they can, there will still remain field enough for independent effort, and the high school work will be found to have prepared the way and created demand for such effort.

Every school in which this work is undertaken and carried to a successful issue would become a center of influence, and help to build up a public sentiment in favor of the new education.

Without turning the elementary schools into shops, modifications of their work are possible which would make them more valuable in preparation both for higher schools and for wage-earning pursuits.

Were manual training of a practical sort provided for all the grades, and were the arithmetic, the language and the drawing brought into closer relations to it; were nature study and school and home garden work made more general, — the passage from the grammar school to the high school would not

be less easy, but the passage from the school to the shop and the farm would be easier.

There is nothing revolutionary in this. It would only be carrying out the historic policy of the State to fit the schools of each new generation for the needs of the times.

THOMAS B. FITZPATRICK.

CARROLL D. WRIGHT.

JOEL D. MILLER.

KATE GANNETT WELLS.

CLINTON Q. RICHMOND.

GEORGE I. ALDRICH.

ELLA LYMAN CABOT.

ALBERT E. WINSHIP.

REPORTS
OF
NORMAL SCHOOLS.

STATE NORMAL SCHOOL, BRIDGEWATER.

ARTHUR C. BOYDEN, PRINCIPAL.

INSTRUCTORS IN THE NORMAL SCHOOL.

ARTHUR C. BOYDEN,	History, and the history of education.
ALBERT G. BOYDEN, Principal Emeritus,	Educational study of man, the principles and art of teaching, school organization, school government, school laws of Massachusetts.
FRANZ H. KIRMAYER,	Latin, Greek, French, German.
WILLIAM D. JACKSON,	Physical science, mathematics.
CHARLES P. SINNOTT,	Geography, physiology, and hygiene.
HARLAN P. SHAW,	Chemistry, mineralogy, industrial laboratory.
FRANK E. GURNEY,	Geometry, algebra, astronomy.
CLARA C. PRINCE,	Vocal music, algebra.
FANNY A. COMSTOCK,	Arithmetic, geometry, English.
LILLIAN A. HICKS,	Supervisor of practice work in the model school, child study.
ELIZABETH H. PERRY,	Drawing and manual arts.
GRACE C. SMITH,	Assistant in drawing.
ELIZABETH F. GORDON,	Physical training.
GRETCHEN OSTERHOUDT,	Assistant in physical training.
ALICE E. DICKINSON,	English.
FLORENCE I. DAVIS,	Biology, nature study.
ANNA W. BROWN,	Vocal expression.

INSTRUCTORS IN THE MODEL SCHOOL.

BRENELLE HUNT,	Principal.
ETHEL P. WHEELER,	Ninth grade.
MARTHA M. BURNALL,	Eighth grade.
MYRA E. HUNT,	Seventh grade.
NELLIE M. BENNETT,	Sixth grade.
JENNIE BENNETT,	Fifth grade.
BERTHA O. METCALF,	Fifth and sixth grades.
MARY L. PERHAM,	Fourth grade.
SARAH W. TURNER,	Third grade.
NEVA I. LOCKWOOD,	Second grade.
FLORA M. STUART,	First grade.

INSTRUCTORS IN THE KINDERGARTEN.

ANNE M. WELLS,	Principal.
FRANCES P. KEYES,	Assistant.

CHANGES IN THE FACULTY.

The following changes have been made in the faculty this year. Miss Ruth W. Smith, assistant in the department of physical training, resigned to take charge of a similar department in the State Normal School at Montclair, N. J.; and Miss Gretchen Osterhoudt, a graduate of the Boston Normal School of Gymnastics, was appointed to fill the vacancy.

Miss Adelaide Reed, for many years a most faithful teacher

in the ninth grade of the model school, resigned at the close of the school year. Her quiet, refined manner and clear teaching have left an indelible influence on a large number of young people. We were fortunate in securing for this place the services of Miss Ethel P. Wheeler, a graduate of the Salem Normal School, who was teaching in the Lynn Training School.

Miss Sarah V. Price, also a teacher in the model school, was obliged to resign on account of ill health. The vacancy caused by her resignation was filled by the appointment of Miss Bertha O. Metcalf of West Medway, a teacher of several years' experience.

SELECTION OF CANDIDATES.

The demand upon the normal schools for good teachers is far beyond the supply. For this reason, special pains should be taken in making the selection from candidates who apply for admission, in order that the efforts of the schools may be expended in the most effective manner. This school has reached the limit in the number of students which it can successfully handle with its present facilities, hence it more rigidly insists on the best qualifications for entrance. Two points of emphasis are made in the selection of candidates. The first of these is good health. That sympathy for children and appreciation of their struggles which is the prime qualification of a successful teacher is largely dependent on bodily vigor and freshness. We are therefore requiring a more careful physical examination of candidates by the school physician. Many valuable suggestions are made and remedies insisted upon; those who are physically incompetent are not allowed to begin the work; and oftentimes the result of the examination is a revelation to the parents of the young people. This concern for the health of the student is followed up specifically and continuously in the regular gymnasium exercises and baths, where the esthetic element, also, is in a large degree added to the usual physical training. Care of the health is still further supplemented by the supervision of the trained nurse, who is one of the regular employees in the dormitories.

The second point of emphasis is scholarly attainments. The new method of admitting on the certification of approved high

schools has been of great assistance to this school in raising the standard of scholarship. The high schools are responding to the responsibility laid upon them, and by visits and consultations it is becoming possible to attract abler students to the profession of teaching, while the weaker ones who are contemplating a normal school course are often turned in other directions through the difficulty in meeting the entrance requirements. This policy has tended to increase the number of applicants, rather than to diminish them.

VOCATIONAL TRAINING.

The vigorous and wide-spread discussion of vocational training means much more than the introduction of a few new subjects into the curriculum; more than the reorganization of courses along more practical lines; even more than the addition of trade schools and technical courses to the present school system. It is a part of the movement of this generation towards bringing school education into closer connection with the real conditions and activities of the life of the new century. It means the broadest development of the individual for the purpose of social service, and it includes both the vocations and the avocations of life.

Three lines of preparation are recognized in the Bridgewater school as essential for this work: first, a careful study of the attitude of children toward industry, to determine their natural interests in processes and products, to understand the stages in their development along manual lines, and to determine the relative place and value of individual and group work; second, a simple working knowledge of the great typical industries, and of the materials that may be used in schools and that can be adapted to meet the needs of each community; third, the ability to correlate constructive work with the other subjects of school study, so that a vital connection is made with the interests and environment of the child. History includes social and industrial development as distinctly as political development; English and drawing become definite means of constructive expression; geography includes the industrial lines as apperceptive centers for understanding world conditions; and mathematics becomes of direct value in practical computations.

The natural science garden is a valuable addition to the school in connecting the class instruction with the great industries of agriculture and floriculture. With the construction of the new greenhouse we shall be able to give our normal students preparation for even more effective work. The rearrangement of some of the laboratories to meet the new conditions has been another factor in connection with this line of instruction.

SPIRIT OF THE SCHOOL.

Believing that the success of a teacher depends fundamentally on spiritual qualities, the constant effort of the school is to develop the finer qualities of character. The spirit of honor is cultivated through the plan of individual self-government, which is based on suggestion and personal conference rather than on a code of rules. In every department of study honest effort is regarded as the prime essential to good standing. A hearty spirit of co-operation and willingness to serve is manifest in the various activities of school life. The so-called culture subjects are used to cultivate a spiritual sensitiveness to the best in literature, art and music.

OPPORTUNITIES FOR TRAINING.

The extended lines of training are proving their value each year. They include: first, working with individual children who need help in developing good habits of study or work, or who have peculiarities that prevent the full use of class exercises, or who need special opportunities for individual self expression; second, practice under actual schoolroom conditions, as found in the schools of a number of towns adjoining Bridgewater; third, opportunities for observation and practice in rural schools.

DORMITORIES.

Within a few years it will be a matter of wise foresight, if not of necessity, to replace the wooden "Normal Hall," built in 1869, by a modern brick residence hall similar to "Tillinghast Hall." At the same time a separate administration building should be constructed, in which should be included the offices and reception rooms, the dining room and the kitchen

arrangements. This plan, if carried out, will aid in the administration of the school, and will obviate the massing of a large number of students in a wooden building.

STUDENT LOAN FUND.

During the past year, through the efforts of the alumni and other friends of the school, a loan fund has been raised for the assistance of worthy students. This fund now nearly reaches the sum of one thousand dollars, and special means will be taken during the coming year to materially increase the amount. It is in charge of a committee appointed by the faculty, who have made regulations governing its use. Divided into one-hundred-dollar lots, it will serve as a set of scholarships which may be loaned to students who, while doing excellent work in the school, find themselves without means to complete the course. The State aid fund now divided among the ten normal schools, while of great assistance, does not give help in sufficient amount to meet all the demands. It must be remembered that the normal schools attract a large number of worthy students from families of limited means. A little timely assistance often means much to the student, and to the State, in his preparation for the teaching profession.

STATISTICS.

The statistics of the school for the year ending Aug. 31, 1908, are as follows:—

1. Number of students for the year, 270,—28 men, 242 women; number in the entering class, 125,—11 men, 114 women; number of graduates for the year, 101,—8 men, 93 women; number receiving certificates for special courses, 5 women.

2. Whole number of students who have been members of the school, 5,743,—1,370 men, 4,373 women; number who have received certificates or diplomas, 3,922,—920 men, 3,002 women; of whom 334 have graduated from the four years' course,—172 men, 162 women.

3. Of the 270 members of the school for this year, Plymouth County sent 91; Norfolk, 55; Bristol, 39; Suffolk, 19; Middlesex, 16; Barnstable, 15; Essex, 9; Hampshire, 5; Hampden, 4; Dukes, 3; Worcester, 3; Nantucket, 2; Franklin, 1; the State of Vermont, 3; Maine, 2; New Hampshire, 2; Connecticut, 1; total for Massachusetts, 262, 13 counties and 82 towns being represented; from other States, 8.

4. The distribution of the students for the year among the different courses was as follows: special courses, 17,—4 men, 13 women; regular four years' course, 47,—23 men, 24 women; intermediate, or three years' course, 36,—1 man, 35 women; kindergarten-primary course, 9 women; elementary course, 161 women.

5. The average age of those admitted was 19 years, 7 months; that of special students, 26 years, 8 months; that of students entering upon regular courses, 18 years, 6 months.

6. Of the 125 admitted, 9 came from colleges, 3 from normal and training schools, and 113 from high schools and academies; 18 had taught previous to coming.

7. The occupations of the fathers of those admitted were given as follows: mechanics, 34; merchants and dealers, 15; superintendents and foremen, 9; clerks, 8; farmers, 7; civil service, 5; physicians, 5; janitors, 5; laborers, 5; manufacturers, 4; salesmen, 4; railroad service, 4; sea captains, 3; teachers, 2; contractors, 2; printers, 2; real estate agent, surveyor of lumber, librarian, artist, landscape gardener, undertaker, baker, 1 each; not living, 4.

8. Of the 125 students admitted, Bridgewater sent 10; Fall River, 10; Quincy, 9; Brockton, 8; Taunton, 7; Haverhill, Hingham and Weymouth, 4 each; Boston, Plymouth and Rockland, 3 each; Andover, Braintree, Easthampton, Marion, Middleborough, Palmer, Provincetown, Waltham, West Bridgewater and Whitman, 2 each; Abington, Brewster, Chatham, Chelsea, Dighton, Easton, Framingham, Gloucester, Halifax, Hanover, Hanson, Holbrook, Hyde Park, Kingston, Lakeville, Longmeadow, Marshfield, Mattapoisett, Medway, Milton, Northampton, Norwell, Norwood, Oak Bluffs, Plympton, Raynham, Somerset, South Hadley, Stoughton, Walpole, Wareham, Winchester and Winthrop, 1 each; the State of Maine, 2; New Hampshire, 2; Vermont, 2; Connecticut, 1.

GEORGE I. ALDRICH,
CARROLL D. WRIGHT,
Board of Visitors.

STATE NORMAL SCHOOL, FITCHBURG.

JOHN G. THOMPSON, PRINCIPAL.

INSTRUCTORS IN THE NORMAL SCHOOL.

JOHN G. THOMPSON,	Pedagogy.
E. A. KIRKPATRICK,	Psychology, child study and school laws.
PRESTON SMITH,	Natural science and school hygiene.
CHARLES S. ALEXANDER,	Mathematics.
ANNETTE J. WARNER,	Drawing.
FLORA E. KENDALL,	English.
ABBY P. CHURCHILL,	Nature study and biology.
ELIZABETH B. PERRY,	Music.
NELLIE B. ALLEN,	Geography.
FLORENCE N. MILLER,	History.
LILLIAN A. PHILLIPS,	Manual training.
JANE E. MITCHELL,	Physical culture.
MAUD A. GOODFELLOW,	Library economy, librarian and clerk.

[The teachers in the normal school supervise the teaching of their respective subjects in the model and practice schools.]

INSTRUCTORS IN THE MODEL AND PRACTICE SCHOOLS.

CHARLES S. ALEXANDER,	Principal of training schools.
MATILDA B. DOLAND,	Supervising principal at Day Street school.
MERCIE A. ALLEN,	Supervising principal at Edgerly school.
MARGARET M. SLATTERY,	Supervisor.
MATTIE A. COLE,	Supervisor.
MARY McCONNELL,	Supervisor.
IDA M. AUSTIN,	Supervisor.
L. FRANCES JONES,	Supervisor.
CAROLINE G. HAGAR,	Supervising principal at Highland Avenue school.
SADIE E. LAMPREY,	Assistant supervisor.
FLORENCE E. SCOTT,	Principal of kindergarten.
BERTHA M. MCGEE,	Assistant kindergartner.

GROWTH.

Three new members have been added to the faculty during the year: Miss Jane E. Mitchell, who takes charge of physical culture; Miss Sadie E. Lamprey, assistant supervisor in primary grades; and Miss Bertha M. McGee, assistant kindergartner. Their work has been very satisfactory.

The steady growth in membership has continued. The num-

ber of students on December 1 is given below for 1908 and for each of the preceding five years: —

1903,	.	.	.	.	.	.	.	.	117
1904,	.	.	.	.	.	.	.	.	133
1905,	.	.	.	.	.	.	.	.	136
1906,	.	.	.	.	.	.	.	.	141
1907,	.	.	.	.	.	.	.	.	172
1908,	.	.	.	.	.	.	.	.	191

From Dec. 1, 1898, to Dec. 1, 1908, the number doubled. Since the establishment of the school every addition to its facilities has immediately shown itself in increased attendance and in a lowered cost to the State per pupil. As long as there are not enough normal graduates sent out each year to meet the demand, the question for consideration is not so much the total cost as the cost per pupil. In making this statement we are not forgetting that there is a more important question than either, — the question of the quality of the graduates which it sends out. The new practice school, opened in 1900, resulted in an immediate increase of 10 per cent. in membership, and a similar result followed the opening of the new boarding hall in 1903. Another boarding hall is needed to-day. From a financial view point alone it would be a paying investment for the State. Land is needed for playground and for school gardens. There is now unimproved land adjoining the State property, which it would be well to secure while it can be obtained cheaply.

KINDERGARTENS.

In September, 1908, the city of Fitchburg established two kindergartens, placing each in charge of two normal students, thus providing three rooms for kindergarten training under the direction of the head of the kindergarten department at the normal school. This enables those taking this course to have abundance of practice under differing conditions. The kindergarten course has been so co-ordinated with the work of the regular course that those who desire to teach in grade 1 get some work in the kindergarten, and *vice versa*. Superintendents always look with favor upon primary teachers who have had kindergarten training and experience.

SCHOOL GARDENS.

For some years under the direction of the instructor in nature study the children in the practice schools have planted and cared for school gardens, including plots planted for the purpose of illustration in science and geography. In the fall they have planted bulbs for forcing. The normal students have learned, both by theory and practice, how to plan a school garden, select seed, prepare soil, etc.; also how to plant bulbs, to care for them during the winter, and when and how to force them. This year we have built a cold frame with a capacity of nearly two thousand bulbs, and have potted several hundred ready for forcing. This work is very satisfactory, as the child and the teacher can follow the whole process without a break.

LIBRARY INSTRUCTION.

In May, 1906, Mr. Arthur C. Boyden, principal of the Bridgewater State Normal School, visited the normal schools of the middle west. In the eight schools which he visited he found courses in library instruction, the value of which was pointed out in his report to the State Board of Education. In the winter of 1907 work along this line was begun at the Fitchburg State Normal School, under the direction of the librarian. The work has been of much interest to the students from the first, and has constantly grown in helpfulness. The course as given includes: classification and cataloguing; selecting and purchasing of books, — trade bibliography; use of reference books; care of books, mending of books, book binding; the make-up of a book, and the purpose of each of its parts; making of a bibliography; history of books and of libraries; library extension work, especially work done with children, — ways in which the public library and public schools co-operate; collecting, mounting and classifying of pictures and clippings.

Some of the objects of this work in library instruction are to have the students: learn which book to use, and how and when to use it; discover how to teach children to care for books, to use books as tools, to form the habit of reading books; correlate this library work with the course of study.

NEW MANUAL ARTS BUILDING.

Upon petition of the city of Fitchburg, through its mayor, the Legislature of 1908 appropriated \$75,000 for the erection of a building upon the grounds of the State Normal School at Fitchburg to be used for instruction in manual arts. It is proposed to bring together into this building from all parts of the city of Fitchburg those boys and girls in the two years below the high school (*i.e.*, twelve to fourteen years of age) who do not expect to enter the high school, and to give them a more practical education than is now given in the upper grammar grades. Fifty-two per cent. of the pupils in the public schools of Massachusetts leave at the end of the grammar school, or before they have reached the age of fourteen. The work of the Industrial Commission cannot reach these children before they leave school, therefore it is proposed to do something for them in the public schools. In Fitchburg they are to constitute a part of the practice schools connected with the State Normal School.

The building is also to provide for the normal students opportunities for instruction in manual arts; and for those who desire to teach in the grammar grades, observation and practice in the more practical work that is being called for everywhere to-day. It will be completely equipped for domestic art and domestic science, and will contain shops for working in wood, textiles, leather, metal and clay. It will enable many of the normal students coming from the smaller high schools to round out a book education by an education in doing; and will give an opportunity to teachers now in service, by taking a special one year's course, to prepare themselves for the new work for which superintendents are seeking teachers. A study of the industries is conducted by the department of geography, especial attention being given to the industries of Fitchburg and vicinity. The owners and operators of mills and factories have cordially co-operated, welcoming classes to their mills, and appointing men to explain the manufacturing processes in detail. In connection with the new school we shall expect to extend and to broaden this work. A collection of raw materials, finished products, pictures, descriptive printed matter, etc., has been begun.

The local manufacturers have contributed liberally to it. This will probably be housed in the new building, and should prove of great value. The building is in course of erection. It is hoped to dedicate it in September, 1909. For grading and equipment it will be necessary for the Legislature to make a special appropriation.

PROFESSIONAL IMPROVEMENT.

The members of the faculty of the Fitchburg Normal School strive not only to keep alive and awake, but to grow. Faculty meetings for the discussion of problems connected with the work are means to this end; attendance upon Saturday meetings in Boston and elsewhere, study and travel during the summer vacation, are others. During the last summer four members of the faculty were in Europe, one in California, one in Canada, one in Mexico; two were on the program of the National Educational Association at Cleveland; and another gave addresses during the summer in the middle west and elsewhere. Members of the faculty have always been in demand as teachers in summer schools; three were so engaged the last vacation. Three weeks in April and May and a part of November, by the courtesy of the Board, the principal of the school visited normal schools in Indiana, Illinois, Michigan, New York, Pennsylvania and New Jersey. The reports of the visits abroad and in this country have been interesting and helpful.

STATISTICS.

The statistics for the year ending Aug. 31, 1908, are as follows: —

1. Number of different students for the year, 177. Number in the entering class, 89 women. Number of graduates for the year, 58 women, 43 from the elementary or two years' course, 2 from the kindergarten course, and 13 from the advanced course. Number receiving certificates for special courses, 20.

2. Whole number of students admitted since the opening of the school (September, 1895), 816, — 805 women, 11 men (this number includes the class admitted in the fall of 1908, but does not include the teachers who have taken special afternoon work at different times).

3. Number of States represented in the membership of the school for this year, 2.

4. Number of counties in Massachusetts represented, 7.
5. Number of towns in Massachusetts represented, 40.
6. Average age of entering class, 20.5 years; that of special students, 23.5 years; that of students entering upon regular courses, 18 years.
7. Number who have had experience as teachers, 20.
8. Occupation of fathers: Laborers, 16; farmers, 13; merchants, 7; deceased, 7; foremen, 4; milkmen, 4; manufacturers, 4; machinists, 3; carpenters, 3; masons, 2; clerks, 2; plumbers, 2; mechanics, 2; janitors, 2; contractors, 2; moulders, 3; retired, 1; photographer, 1; undertaker, 1; musician, 1; overseer, 1; engineer, 1; blacksmith, 1; travelling salesman, 1; physician, 1; horse dealer, 1; chief of police, 1; editor, 1; cattle dealer, 1.
9. Number of students, Dec. 1, 1908, 191.

JOHN G. THOMPSON,
Principal.

STATE NORMAL SCHOOL, FRAMINGHAM.

HENRY WHITTEMORE, PRINCIPAL.

INSTRUCTORS IN THE NORMAL SCHOOL.

HENRY WHITTEMORE,	School organization and government, pedagogy.
AMELIA DAVIS,	Mathematics and astronomy.
FREDERIC W. HOWE,	Chemistry, physics, dietetics, household sanitation.
AVERY E. LAMBERT,	Biology, nature study, bacteriology, physiology.
LUCILE G. FRENCH,	Assistant in sciences.
LOUISA A. NICHOLASS,	Household arts.
ANNIE B. PENNIMAN,	Household arts, sewing, laundry work, basketry.
LILLIAN A. ORDWAY,	Geography, psychology of childhood, Latin, gardening.
MARY C. MOORE,	English language and literature.
ANNA L. MOORE,	History, history of education, civil polity.
MARY H. STEVENS,	French, English.
JANE E. IRESON,	Elocution and reading, gymnastics.
EDMUND KETCHUM,	Drawing and hand craft.
FREDERIC W. ARCHIBALD,	Music.
MARY BENNETT,	Physical culture, physiology.

INSTRUCTORS IN THE PRACTICE SCHOOL.

ANTOINETTE ROOF,	Principal.
SUSAN M. EMERSON,	Ninth grade.
ANNA M. ROCHEFORT,	Eighth grade.
LOUIE G. RAMSDELL,	Seventh grade.
NELLIE A. DALE,	Sixth grade.
GERTRUDE K. PRATT,	Fifth grade.
ALICE V. WINSLOW,	Fourth grade.
- ¹	Third grade.
ELIZABETH MALLOY,	Second grade.
MAUDE A. DOOLITTLE,	First grade.
PHEBE M. BEARD,	Kindergarten.

GENERAL MANAGEMENT.

Inasmuch as the management of school economy is as essential a feature of conservative, judicious progress as is that of good scholarship, it is pleasant to record that the past year has shown, even more fully than in previous years, a continuous growth in wise administrative power. Just so far as the high schools maintain an increasingly high standard, though the rate

¹ A temporary teacher in charge.

of advancement each year may be slight, will our normal schools profit by such advance and be able to send forth better equipped teachers. Especially will this be the case in regard to those who can stay but two years in a normal school, so heavy in many instances is the pressure of self-support. Even when the realization that a longer expenditure of time spent in training brings better financial returns, it is not always possible for pupils to sacrifice the needs of the present moment to future advancement.

CHANGES IN CROCKER HALL.

Through the special legislative appropriation last winter of \$5,500 we have been enabled to enlarge the kitchen in Crocker Hall and to equip it with more modern facilities for its work. As a hundred persons, instructors and students, take their meals in the dining room of Crocker Hall, it was extremely difficult to do the cooking for such a large family in the old but small kitchen, which once had been ample in space. We also have been able to obtain additional bath and toilet rooms and another sleeping room. All these changes have been admirably carried out by the firm of Peabody & Stearns, with Mr. Frank A. Kendall as supervising architect.

CHANGES IN THE FACULTY.

The opening of the new high school in South Framingham has somewhat relieved the crowded condition of the practice school by the removal of its ninth grade, Miss Susan M. Emerson instructor, to the high school. Miss Grace Le B. Esty, after two years of excellent service to the State, resigned to be married. The number of instructors in the practice school has been increased by the appointment to the fifth grade of Miss Adelaide King Pratt, a former graduate of Bridgewater Normal School, and, at the time she came to Framingham, principal of the training department of the State Normal School at Randolph, Vt. Miss Maude Alice Doolittle, a graduate of Framingham State Normal School, and, at the time of her appointment, teacher of a first grade in Plainfield, N. J., has been appointed teacher of the first grade. These appointments have permitted of readjustment of the other grades of the school.

HOUSEHOLD ARTS DEPARTMENT.

The pupils in this department now number 89, — an increase which presumably is due to the establishment of a three years' course, for, as the industrial character of education in general becomes more recognized, specialization of function needs to be persistently thorough. Proficiency in household arts now means adaptation to the needs of daily living, as home nursing and bookkeeping, household decoration and sanitation, cookery and bacteriology supplement each other.

NEEDS OF THE SCHOOL.

The growth of the normal school, the present number of its pupils being an enrollment of 261, makes more than ever imperative the need of a new practice school building. It is hoped that the Legislature will grant such a modest appropriation for a new practice school on land already belonging to the State, adjacent to its present buildings, that we shall not be compelled much longer to have 50 pupils in one small room. The school committee of Framingham is willing to do all it can to forward the erection of a separate school building for the use of the practice department of the school.

LECTURES.

Mr. Frederic L. Burnham gave two lectures. Hon. George H. Martin spoke on "Change in Educational Aims and Methods;" Mr. John T. Prince on "Educational Processes." Miss Emily Paulson lectured on "The Handicapped Child;" Miss Kate Brownlee on "The Moral Training of Children." Mrs. Christabel Kidder gave the reading of "The Winter's Tale." Mr. Edward Howe Forbush spoke on "The Care and Protection of Birds;" Mrs. K. G. Wells on "Manners and Morals." Mr. A. T. Kempton gave an illustrated lecture on "Hiawatha." The glee club of the school gave a concert; and under the direction of Miss Bennett a unique May day festival was held.

GIFTS.

The school received from Miss Julia A. Sprague several books and magazines for the library and reading room, and from

Miss Susan Minns of Boston five large framed photographs of unusual excellence. Mrs. K. G. Wells also sent framed pictures. Bronze tablets, to mark the various portraits hanging in the school of its past principals, and to indicate their services to it, were purchased with money contributed for this purpose by the class of 1907. The class of 1908 presented a catalpa tree and planted it, and also gave a generous sum of money towards some gift for the school.

STATISTICS.

1. Number of pupils admitted September, 1907, 137. Number who graduated June, 1908, 61; of this number, 55 graduated from the regular two years' course, and 6 from the department of household arts. Whole number of pupils for the year 1907-08, 247. They are divided as follows: seniors, 70; middle juniors household arts, 30; juniors, 147; total, 247.

2. Average age of pupils admitted September, 1907, 18 years, 10 months.

3. Occupations of parents: mechanics, 36; merchants, 27; farmers, 23; teamsters, 6; superintendents of industries, 10; gardeners, 3; commercial travellers, clergymen, watchmen, dyers, 2 each; treasurer, stable keeper, dentist, laundryman, printer, editor, plumber, butcher, brick-maker, shipper, lawyer, brewmaster, engineer, warehouseman, doctor, assessor, barber, sea captain, pilot, junk dealer, ranchman, real estate, insurance agent, postmaster, 1 each.

4. Residences of 137 pupils admitted September, 1907; Massachusetts, by counties: Franklin, 4; Hampshire, 1; Hampden, 6; Worcester, 23; Suffolk, 7; Middlesex, 61; Norfolk, 20; Bristol, 4; Plymouth, 5; Essex, 3; total, 134. From other States: Maine, 1; New Hampshire, 2; total, 3. From Massachusetts, 134; from other States, 3; total, 137.

KATE GANNETT WELLS,
THOMAS B. FITZPATRICK,
Board of Visitors.

STATE NORMAL SCHOOL, HYANNIS.

W. A. BALDWIN, PRINCIPAL.

INSTRUCTORS IN THE NORMAL SCHOOL.

W. A. BALDWIN,	Psychology, pedagogy, history of education.
ANNIE S. CROWELL,	Physical training, physiology, advanced geometry.
HANNAH M. HARRIS,	English, history.
JULIA A. HAYNES,	Biology, mathematics.
MINERVA A. LAING,	Chemistry, mineralogy, drawing.
CHARLES H. MORRILL,	Geography, manual training, physics.
EDMUND F. SAWYER,	Vocal music.

INSTRUCTORS IN THE TRAINING SCHOOL.

A. MONROE STOWE,	Principal, eighth and ninth grades.
ANNIE H. CHADWICK,	Sixth and seventh grades.
HARRIET C. MOORE,	Fifth and sixth grades.
MARY GREGG,	Fourth grade.
SARAH S. FORD,	Second and third grades.
IDA E. FINLEY,	Principal of primary pepartment, first grade.

TEACHERS.

There has been no change in the regular teaching force during the past year. Miss Edith S. Haskell, who substituted in history and literature during the spring term, did intelligent, strong work. In September Miss Hannah M. Harris returned to her work with renewed vigor and enthusiasm.

Miss Minerva A. Laing undertook her usual work after the summer vacation, expecting to continue through the year. After about four weeks of work it became apparent that she ought not to continue, and her physician ordered a rest and change. In view of ten years of faithful service in the school, Miss Laing was granted leave of absence for one year. A part of the work of Miss Laing is being done by other teachers, but for a part of the work a substitute will be secured.

PRINCIPAL BALDWIN IN EUROPE.

After seeing the school well started, Mr. Baldwin sailed Oct. 15, 1907, for Europe, returning June 20, 1908, in time

for the closing exercises and for the summer session. As was expected, the work of the school was not allowed to suffer during his absence. No new lines of work were attempted, but Mr. Morrill, the acting principal, with the help of the other members of the faculty, held loyally to the high standards which the school has ever tried to uphold. During the year Mr. Baldwin visited public schools in Liverpool, Chester, London, Edinburgh, Glasgow, Munich and Vollandam. He spent much time in investigating the training of teachers in England and Scotland, visiting all types of training colleges, university training classes and city training centers, and has incorporated the observations made in a report to the United States Commissioner of Education. He visited many schools for defectives in London, Liverpool and Edinburgh. He devoted considerable time to the continuation schools in Munich and Edinburgh. He several times visited the Robert Browning and Passmore Edwards settlements in London. He carefully inspected Dr. Campbell's famous Royal Institute for the Blind in London. He spent two days at Bedale School. He interviewed many prominent people who are interested in the Parents' Union movement, and visited Miss Mason's school at Ambleside, which is the headquarters for their literature, the model school and the school for the training of their teachers. He gave addresses before the Edinburgh Parents' Union, The London Child-study Association and many other educational organizations. He had conferences with educational leaders such as Dr. Sadler and Professor Finley of Manchester University, Superintendent Kerschensteiner and Dr. Reinland of Munich, Professor Schwartz of Geneva, Dr. Morgan of Edinburgh and Mr. J. C. Hudson of London. He reports that everywhere he found education moving forward, a hopeful spirit and a disposition to think of America as a land unfettered by traditions, believing in its public schools and willing to lavish unlimited amounts of money upon them, — a land full of opportunity for doing leadership work. He returns feeling that the normal schools of Massachusetts have indeed a mission, not only for their own State, but for the world, and that the Hyannis school has only to continue quietly to develop along lines already started to do its share of this leadership work.

AN EUROPEAN ESTIMATE OF THE HYANNIS NORMAL SCHOOL.

The following quotation appeared in a recent issue of the "Hyannis Patriot" : —

HYANNIS SCHOOLS TO THE FRONT.

"Moral Instruction and Training in Schools," in two volumes, has just been published in London. The book is a report of an international inquiry, which a meeting held in London in 1906, to consider the question of moral instruction and training in schools, instituted. The volumes include reports from the schools of Great Britain, France, Belgium, Scandinavia, Switzerland, Germany, United States, Canada, Australia, New Zealand and Japan. Those interested in the Hyannis schools may be pleased and proud that in this report a chapter is devoted to the work of the Hyannis schools, by Principal William A. Baldwin of the State Normal School. This book brings out for consideration differences in opinion as to the way in which moral instruction may be most wisely given. In the introduction it says: "Among the different views of what is the right organization of the work of a school, two are in strong contrast at the present time. The first view lays especial stress upon a didactic power of the school; the second, upon the educated power of the activities of the school community. The first view finds its most characteristic expression in the teacher directing from his desk the intelligence and aspirations of the pupils who sit before him in the class room; the second is that of a more or less self-governing community, occupied with vital movement of all kinds, full of freedom and initiative in a great variety of tasks, self-expressive, educatively practical, busy with the effort to accomplish certain things. This view has found its most persuasive advocate in Prof. John Dewey of Columbia University, and perhaps its most elaborate realization in the University Elementary School, Chicago, and the State Normal School at Hyannis, Mass.; and several other well-known schools in England, Denmark, Germany and the United States bear witness to the influence of the new doctrine."

These volumes show much of the vast work that is being done in the schools of the world that the children may be trained to lives of usefulness and happiness.

To be cited in this book, which will be read with interest and profit by educators the world over, is the broadest recognition which the Hyannis schools have yet received.

REPAIRS.

After eleven years of constant use for both winter and summer sessions, the buildings and furnishings begin to need more

than the usual annual repairs. During the past summer the following items received attention: defective ceilings were repaired, at an expense of about \$180; the tops of tables in the recitation rooms were renewed by sandpapering and varnishing, at an expense of \$150; Venetian shades were repaired, at a cost of about \$75; window frames, ceilings, etc., were painted, floors were oiled and varnished, at a cost of about \$500; mattresses were made over, at a cost of \$100.

MONEY RETURNED TO THE STATE TREASURY.

The State inspector of boilers had suggested that new boilers would be required in the near future, and \$1,500 had been added to the repair fund for that purpose. It was found that the old boilers could be used for another year by reducing the pressure, and so the \$1,500 was turned back to the State treasury as an unexpended balance.

MUCH-NEEDED REPAIRS.

The State inspector has again suggested the necessity for new boilers, and we expect to need about \$1,500 for that purpose. Two steam pumps are needed, one for pumping cold water to the tanks in the top of the buildings and the other for pumping hot water returning from the dormitory. Crushed stone is needed for renewing the walks and drives of the campus.

STATISTICS.

1. Number of students registered Sept. 10, 1908: men, 12; women, 34; total, 46.
2. Number of students registered since Sept. 9, 1897: men, 68; women, 363; total, 431.
3. Average age of entering class when admitted: 20 years.
4. Number who have had experience as teachers: 9.
5. Residence of pupils: Barnstable County, — Barnstable, 8; Dennis, 1; Harwich, 2; Orleans, 1; total, 12; Dukes County, — Gay Head, 1; Tisbury, 1; total, 2; Franklin County, — Conway, 1; Norfolk County, — Walpole, 1; Suffolk County, — Boston, 1; Worcester County, — Barre, 1; Mexico, 2.
6. Occupation of pupils' parents: merchants, 4; carpenters, 2; fishermen, 2; poultry dealers, 2; cabinet maker, engineer, farmer, livery stable keeper, State officer, selectman, steward, watchmaker, each 1.

SUMMER SESSION.

The interest in the summer session continues to increase and to deepen. The number of applicants for 1908 was greater than the boarding accommodations of the village of Hyannis were able to supply, so that it was found necessary to advise some teachers to go elsewhere. The proportion of superintendents of schools and of supervisors of drawing and manual training teachers was very large, thus insuring that many more teachers will be influenced by the Hyannis work than just those who were present.

The faculty of the summer session consisted of the following:—

W. A. BALDWIN,	Principal.
EDMUND F. SAWYER,	Instructor in music, State Normal School, Hyannis.
MARY E. LAING,	Formerly instructor in pedagogy, State Normal School, Oswego, N. Y.
CHARLES P. SINNOTT,	Instructor in geography, State Normal School, Bridgewater.
GERTRUDE E. BIGELOW,	Instructor in arithmetic, Boston Normal School.
THEODORE M. DILLAWAY,	Supervisor of drawing, Buffalo, N. Y.
ANNIE S. CROWELL,	Instructor in physical training, State Normal School, Hyannis.
MABEL KIMBALL BAKER,	Supervisor of industrial work, Training School, Hyannis.
EDITH S. HASKELL,	Instructor in English, State Normal School, Hyannis.
CHARLES H. MORRILL,	Instructor in manual training, State Normal School, Hyannis.
CLARENCE F. CARROLL,	Superintendent of schools, Rochester, N. Y.
CALVIN N. KENDALL,	Superintendent of schools, Indianapolis, Ind.
W. H. ELSON,	Superintendent of schools, Cleveland, O.

The following statistics may also be of interest:—

Number of students,	180
Average age (years),	29
Average years of experience,	6
Number of students graduated from college,	19
Number of students graduated from normal schools,	42
Number of students graduated from training classes,	19
Number of students graduated from high schools,	136
Number of students who had attended college,	25
Number of students who had attended normal schools,	71
Number of students working for a diploma,	76

CARROLL D. WRIGHT,
GEORGE I. ALDRICH,
Board of Visitors.

STATE NORMAL SCHOOL, LOWELL.

CYRUS A. DURGIN, PRINCIPAL.

INSTRUCTORS IN THE NORMAL SCHOOL.

CYRUS A. DURGIN,	Psychology, pedagogy.
HUGH J. MOLLOY,	Chemistry, physics and arithmetic.
MABEL HILL,	History, civil government and history of education.
ANNA W. DEVEREAUX,	Kindergarten theory and practice, and child study.
- - - - -	Reading, voice training and physical culture.
- - - - -	English grammar, rhetoric and literature.
SARAH C. WHELTON,	Music.
CLARENCE M. WEED,	Nature study, gardening and physiology.
NANCY M. BRAGG,	Geography, algebra, geometry and manual training.
JOSEPHINE W. CHUTE,	Drawing and manual training.
MARGARET CANFIELD,	Secretary and librarian.

BARTLETT TRAINING SCHOOL, LOWELL, MASS.

HERBERT D. BIXBY,	Principal.
BELLE A. PRESCOTT,	Ninth grade, reading, supervisor of practice.
CHARLOTTE M. MURKLAND,	Eighth grade, grammar, supervisor of practice.
BLANCHE A. CHENEY,	Eighth grade, history, supervisor of practice.
AMY L. TUCKE,	Seventh grade, arithmetic, supervisor of practice.
FRANCES CLARK,	Seventh grade, geography, supervisor of practice.
BELLE F. BATCHELDER,	Sixth grade.
MARY E. WALSH,	Sixth grade.
MARIA W. ROBERTS,	Fifth grade.
KATHERINE F. FARLEY,	Fifth grade.
ALICE D. SUNBURY,	Fourth grade.
CAROLINE H. MCGARVEY,	Fourth grade.
BRIDGET K. SMITH,	Third grade.
SARA E. AMES,	Second grade.
A. GERTRUDE STILES,	Second grade.
ESSIE E. ROCHE,	First grade.
E. BELLE PERHAM,	First grade.
HELEN W. NOYES,	Kindergarten, Principal.
EDITH A. ANDREWS,	Kindergarten, Assistant.

GILBERT E. HOOD TRAINING SCHOOL, LAWRENCE, MASS.

LEILA M. LAMPREY,	Principal.
ELLA F. EASTMAN,	Fifth and sixth grades.
ANNIE L. O'CONNOR,	Third and fourth grades.
EMMA J. GREENWOOD,	First and second grades.
MARY E. MAHONEY,	Music.
ANNIE T. MCCARTHY,	Drawing.
HARRIET A. MCKONE,	Seventh grade.
NELLIE S. WINCHESTER,	Seventh grade.

H. FRANCES McDONNELL,	Sixth grade.
MARY A. MAHONEY,	Sixth grade.
GRACE I. CONLIN,	Sixth grade.
MABEL L. MULLEN,	Fifth grade.
LAURA K. PRESCOTT,	Fourth grade.
E. MABEL ANDREWS,	Fourth grade.
ELLEN C. TOBIN,	Third grade.
ETHEL C. RAMSAY,	Third grade.
ADA B. LOCKE,	First grade.

RURAL TRAINING SCHOOL, NORTH TEWKSBURY.
TIRZAH S. MORSE, Principal.

FRANK F. COBURN.

On the eleventh day of February, 1908, Mr. Frank F. Coburn, for nearly eleven years the honored head of the school, entered into rest, after a long and wearisome illness.

It is not the fortune of many to have lived and worked with such a man as Mr. Coburn. To have known him as a man is to have acquired a respect for real manhood; to have known him as a teacher is to feel increasingly the inspiration of the calling which he adorned for so many years; to have known him as a friend is to hold dear in remembrance all that real comradeship means. He was a great executive, clear sighted and judicial, a strong teacher, a "school man" of excellence and ability. His calmness of speech and poise of manner were but the outward semblance of the serenity of spirit which characterized his whole life. At no time during the long years of martyrdom did he allow his infirmity to enter into the life of another. A cheery word and a pleasant smile greeted one always upon his threshold. His native city is better for his having lived in it, the normal school will always bear the impress of his personality, and in his untimely departure, the city, the State and the cause for which he labored have lost alike a splendid, honorable citizen, an inspiring teacher, and a refined, noble-spirited man.

THE FACULTY.

In April of the present year Mr. Cyrus A. Durgin, for ten years the head of the Bartlett Training School, was elected by the Board of Education to succeed the late Mr. Coburn

as principal of the normal school. He brings with him to the new position an intimate knowledge of the school from its organization down to the present time, and, as a valuable asset, a long experience in training school work.

During the year the school has lost the services of two of its valued teachers. In September Miss Mary Hussey was obliged to retire, on account of ill health; and a few weeks later Miss Mabel C. Bragg resigned, to accept a much more lucrative position elsewhere. Both teachers have contributed much to the growth of the school, and their retirement is a distinct loss. At the time of writing, the vacancies have not been filled.

By vote of the Board, Miss Margaret Teague has been doing temporary work during the present term, in the department of physical culture.

In September, 1908, Mr. Herbert D. Bixby, master of the Edmund J. Shattuck School of Norwood, Mass., was elected by the Board of Education to the principalship of the Bartlett Training School. Mr. Bixby was graduated from Tufts College, and later from the Lowell Normal School, and is especially well qualified to carry on the work of the training school.

In June, 1908, Miss Mary C. Ladd, teacher of the first grade in the training school, resigned to be married; and Miss E. Belle Perham, for a number of years principal of the kindergarten, was appointed to fill the vacancy; while Miss Helen W. Noyes, principal of one of the city kindergartens, succeeded Miss Perham.

Notwithstanding the numerous changes in the teaching force the school is in fine condition, and everything promises well for a pleasant and profitable school year.

In the Gilbert E. Hood Training School, in Lawrence, Miss Lamprey and her assistants are doing the same excellent work which has always characterized the school.

The faculty and students have never been more in earnest to promote the best interests of the school, and it is not too much to expect that their efforts will meet with a generous share of success.

RURAL SCHOOL.

The ungraded school at North Tewksbury, under the charge of Miss Tirzah Morse, is already an efficient factor in our train-

ing system, and is furnishing much valuable experience for the students, especially for those whose earlier school experiences have been obtained in city schools.

INDUSTRIAL TRAINING.

Along these lines much advance has been made. Mr. Weed has extended the gardening work in both the normal and the training schools. New gardens have been planted on the grounds back of the school, each student having been allotted a certain area for cultivation. Inside gardening is being carried on extensively in both the normal and training schools. The Bartlett school boasts of a very good "nursery," and the children are preparing, during the winter months, for extensive home gardens in the spring and summer. A "cold frame" is one of the possibilities of the near future.

Much attention is being given to working in brass by Miss Chute, and the results are both artistic and practical.

In the training schools, manual and industrial training are being taught from the third to the seventh grade, and it is hoped to increase the extent of this work by the introduction of sewing into the seventh, and cooking into the eighth and ninth grades, with bench work for the boys of those grades. All of this work is under the direction of Miss Nancy Bragg.

LECTURES.

Lectures have been given during the year by Mr. Henry T. Bailey and Mr. Frederic L. Burnham.

The graduating address was given by Rev. Thomas I. Gasson, S. J., President of Boston College.

ALUMNI ASSOCIATION.

The alumni association continues to grow in numbers and enthusiasm. In fact, the attendance was so large last May as to necessitate the use of the main study hall, in order that all might be seated. The annual meeting has become one of the "red-letter" events of the year.

GIFTS.

The graduating class presented the school with a large photo-enlargement of the late principal, Mr. Frank F. Coburn.

IMPERATIVE NEEDS.

Under this heading it seems proper to quote from last year's report: —

With the beginning of the eleventh year it is hoped that a special appropriation will be made for the interior of the building. The walls and ceilings have never been colored, and as time has gone on, the ravages of wear and tear have left their marks upon every room."

This is still true, — with one more year's "wear and tear" to be added.

The woodwork on the outside of the building is in very bad condition, where "wind and weather" have done their work only too well. It should be painted at once.

The school has never possessed a flag pole. One should be purchased, and erected upon the grounds early in the spring.

STATISTICS.

1. Number of students for year, 144.
2. Number in entering class: junior, 79.
3. Number of graduates for the year, 65.
4. Total number of graduates, 603.
5. Whole number of students admitted since the opening of school, 941.
6. Average age of pupils admitted, 17 years, 7 months.
7. Of the entering class, Middlesex County is represented by 8 towns, Essex County by 3 towns, Lowell furnishes 23 pupils; Lawrence, 29; Chelmsford, 5; Woburn, 4; Methuen, 4; Somerville, 3; Groveland, 3; Billerica, 2; Reading, Bradford, Westford, Manchester, N. H., Salem, N. H., Concord, N. H., 1 each.
8. Occupation of pupils' fathers: merchants, 12; farmers, 6; operatives, 6; foremen, 5; clerks, 4; carpenters, 4; machinists, 4; firemen, 3; agents, 2; bakers, 2; forester, janitor, florist, motorman, mason, conductor, currier, gunsmith, millwright, editor, detective, paymaster, painter, iron moulder, granite cutter, watchman, horseshoer, each 1; deceased, 14; total, 79.

THOMAS B. FITZPATRICK,
KATE GANNETT WELLS,
Board of Visitors.

STATE NORMAL SCHOOL, NORTH ADAMS.

FRANK FULLER MURDOCK, PRINCIPAL.

INSTRUCTORS IN THE NORMAL DEPARTMENT.

FRANK F. MURDOCK,	. . . . .	Psychology, pedagogy.
ROLAND W. GUESS,	. . . . .	Natural science.
WILLIS B. ANTHONY,	. . . . .	Industrial training.
ARCHER C. BOWEN,	. . . . .	History, geography.
FLOYD B. JENKS,	. . . . .	Agriculture.
MARY A. PEARSON,	. . . . .	Drawing.
ROSA E. SEARLE,	. . . . .	Mathematics, music.
ANNIE C. SKEELE,	. . . . .	Physiology, physical culture.
MARY L. BARIGHT,	. . . . .	English, reading.
HELEN V. SCHUYLER,	. . . . .	Domestic arts.
MARION R. SMITH,	. . . . .	Musical interpretation.

MARK HOPKINS TRAINING SCHOOL.

Instructors in the Grammar and Primary Departments.

DONNA D. COUCH,	Principal.
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School organization and management in the normal department.

AMALIE KNOBEL,	Ninth grade.
ADDIE M. AYER,	. . . . .	Eighth grade.
FLORENCE W. RAGUSE,	. . . . .	Seventh and eighth grades.
ROSE G. O'NEILL,	. . . . .	Seventh grade.
E. IDELLA HASKINS,	. . . . .	Sixth grade.
ETHEL M. PLUMB,	. . . . .	Sixth grade.
EMILY D. STACY,	. . . . .	Fifth grade.
FREELOVE CLARK,	. . . . .	Fourth grade.
AGNES E. WALKER,	. . . . .	Fourth grade.
SUSAN G. LOMBARD,	. . . . .	Third grade.
IDA R. CHAPIN,	. . . . .	Third grade.
EMMA H. TINGUE,	. . . . .	Second grade.
EDITH A. ROOT,	. . . . .	Second grade.
ANNIE J. LAMPHIER,	. . . . .	First grade.
ELVA L. BROWNSON,	. . . . .	First grade.

Instructors in the Kindergarten Department.

ELIZA GREAME GRAVES,	. . . . .	Principal.
JENNY M. BUSHNELL,	. . . . .	Assistant.

BRIGGSVILLE RURAL TRAINING SCHOOL.

HANNAH P. WATERMAN,	. . . . .	Principal, grammar department.
NELLA H. COLE,	. . . . .	Primary department.

BROAD BROOK RURAL TRAINING SCHOOL.

BESSIE W. NICHOLS,	. . . . .	Principal, grammar department.
ANNA R. CAMPBELL,	. . . . .	Primary department.

TEACHERS.

From the opening of the school, Feb. 1, 1907, to Dec. 1, 1908, 94 different persons have been members of the faculty. Forty-three teachers who gave instruction to normal students withdrew, 12 marrying, 22 accepting positions as instructors in other normal schools as supervisors, as principals of training or large elementary schools, or other positions of larger opportunities, and 9 resigning on account of health conditions of self or family. Nineteen teachers who had charge of classes of children only in the training schools withdrew, 5 marrying and 14 securing positions of more responsibility and remuneration.

Of 94 members of the faculty from the beginning, 35 are graduates and 3 hold certificates of this school; 14 were assistants to other teachers, 10 had independent charge of classes of children and 14 advanced to the professional instruction of students in practice teaching.

The faculty at present numbers 32, of whom 10 are responsible for professional theory of subjects, 16 for professional practice with children and 6 for classes of children only. Ten graduates of the school are members of the faculty, 6 of them having come, after ample experience in other schools, to full charge of classes at the training school. The use of the training schools to prepare graduate teachers rapidly and thoroughly for positions of larger responsibility and higher remuneration is no small factor in the success of the institution.

INDUSTRIAL COURSES.

Educational officials and the general public have made very numerous and hearty commendations of the industrial training given the students and children. Every student receives definite practical instruction in sanitation, cooking, sewing and the various other forms of manual training. Special courses are offered to prepare teachers of these industrial arts in elementary schools. In the training schools the work of the children in sewing, cooking, sanitation, wood and metal working, basketry, printing, etc., is opportunely used by the students. To them result more lifelike acquaintance with children's interests and

abilities, truer valuation of the relative worth of hand and book work, keener insight into present-day problems of home life, more practical ideals and greater facility in personal adaptation.

During the past season the planting of the school and home gardens was under the general direction of Mr. R. W. Guss, in charge of the science department. The individual gardens, 5 by 15 feet, of the normal students were made and cared for in the usual way. They were highly productive of experience and knowledge; they furnished summer food, fall flowers, products for exhibition, plants for fall and winter use, and a never-failing source of delight to every passer-by.

At the Mark Hopkins training school the children of grade 4 made sixteen grass gardens, each 10 by 20 feet, planting wheat, rye, oats, barley, millet, blue grass, buckwheat, timothy, red top, orchard grass, alfalfa, red clover, white clover, alsike clover and field corn, Dent and Flint. Autumn lessons included the field study of the standing crops, of harvesting, of individual grains; the uses of seed and stalk; the annual or perennial duration of life. In the schoolroom, processes were measured by arithmetic, extended by geography and appropriately expressed by the language arts. Grades 5 and 6 conducted individual gardens, growing vegetables and flowers. Harvesting and the selection of seed were emphasized in the autumn lessons. The kindergarten children planted as usual, and their early lessons in reading as members of grade 1 were based on their spring and fall experience in the gardens.

At the Broad Brook training school the grammar class (fourth, fifth, and sixth grades), with slight assistance, made ready and planted two bulb beds and induced the purchase of nearly five hundred bulbs by the people of the district. They also made and fenced in a flower garden, 6 by 20 feet, the sod being turned by a neighbor. The grounds at this school are now being graded. The active, living interest of the teachers in the pupils and parents, by means of the industrial work, has brought about the social result desired, and made very clear the duties of a normal school as to preparing teachers to meet the communal needs.

At the Briggsville training school, situated in a small mill

village which in turn is set in a farming district, the teachers have likewise lived with the children and parents and neighbors in friendly companionship, and to their efforts for the most part are due the noteworthy successes of that school. The children of the grammar class (fourth to eighth grades, inclusive), after the front portion of the school yard had been plowed and soil dumped, graded the surface, sowed grass seed, dug the pathways and filled them with ashes. They set and used a cold frame of three sashes, planted a flower garden of about 1,000 square feet, and a potato and corn plot 30 by 80 feet. Corn and potatoes were sold to the amount of \$4.15. During this autumn, under the supervision of Mr. F. B. Jenks, the children have accomplished the grading of a steep and very stony terrace 250 feet long and a driveway 30 feet long. By entertainments given by the children and by sale of garden products, money was raised sufficient to pay for the labor of two men on the terraces and to provide seed for the coming season. The boys assisted in laying the wall and surfaced the terrace and driveway. This outdoor work at this school has been for the most part "honor" work, in order to make the introduction of industrial training most profitable and acceptable in a community comprised of mill workers and farmers. Pupils were obliged to earn the privilege of working outdoors by preparing their indoor lessons well in less than the time assigned. The presence of a child at work outdoors was a sign of "honor" work indoors.

In the same way cooking was established as a school exercise. Several girls asked if they could cook, and gave strong reasons for the case. It was assented to, and a two-burner kerosene stove which was in stock was furnished from the normal school for the experiment. The girls then asked for utensils, and none being furnished, they were collected from their several families. Requests for food material were not granted, and the girls procured their own. By this time the insistence of two boys won their admittance to the group. Biscuits were attempted, under the general direction of the regular teacher, and with highly successful results. Mothers had declined to furnish a receipt, but after the successful lesson sent for the teacher's receipt. The efforts of the older group

stimulated the girls of the fifth and sixth grades to the formation of a second group, which has been highly successful, under the direction of an older pupil. The school cooking is at present usually a noon-intermission exercise. Already home cooking by the pupils is an expected duty in some families. Sewing has been in vogue for a year, and is equally valuable.

The remarkable results: (1) the attitude toward and the skill of the children in industrial work; (2) the improvement and the appreciation of book knowledge; (3) the hearty, outspoken approval of the community, especially of some prominent citizens who had looked askance at the work; (4) the improvement in public spirit and the active co-operative effort of parents and neighbors; (5) the practical inspirational effect upon the normal school aims and methods.

AGRICULTURAL EDUCATION.

The agricultural department has started well. The city of North Adams granted for ten years the free use of nearly two acres of land, and Mr. H. G. B. Fisher, as administrator, granted the restricted use of one-half an acre adjoining, all of this land lying between the two school buildings. Most of this land had been used for a dumping ground, but by severe labor it has been reclaimed, and substantial harvests were gathered this fall. The gardens of the children and students will be plotted in the new area, and the former beds will be grassed or used for experiment plots.

Arrangements have been completed with the Massachusetts Agricultural College at Amherst for a joint effort in the preparation of teachers and supervisors of school gardening and agriculture. The college employs an assistant professor in the department of agricultural education, and assigns him for service at the normal school during the spring and autumn. In pursuance of this plan, Mr. F. B. Jenks spent the three autumn months at North Adams, and took full charge of all outdoor work. Children, students and teachers have received his personal instruction. Parents, committees and other officials have been interviewed and addressed at institutes. The grading of the grounds at the rural training schools, the reclamation and laying out of the new tract beside the normal school, the practice

of field study of ripened crops, and the extension of nature study to its practical aspects, are among his prominent successes. A more definite and useful relation to the public schools was made by furnishing from the coleus and geranium plants on the normal grounds branches sufficient for several thousand cuttings.

The greenhouse is now in operation. Plants are grown for use in the various schools, for decoration of the grounds and for spring planting, though in no case is the growing of plants in the schoolrooms omitted by students or children. The greenhouse will pay for itself in less than four years.

Course in School and Home Gardening. — Nature Study.

This course is arranged to prepare departmental teachers of school and home gardening and nature study in grades preceding the high school.

The length of time required to complete this course depends on the scholarship and previous teaching experience of the candidate. A graduate of a first-grade high school, who has had no experience in teaching, will require three years usually to do the work; a graduate of a Massachusetts normal school, if without experience in teaching, will require one year. The time required by college graduates and by teachers of recognized ability will be determined by individual considerations.

Course in Agriculture and Horticulture. — Nature Study.

This course is arranged to prepare departmental instructors for all grades of public schools (including the high), and supervisors of the work in districts, towns or cities.

Four years will be required ordinarily to complete the course. Graduates of normal schools will require two years of additional work, much of which will be done at the college. For college students this course will be a constituent part of their educational course, and much of the pedagogical work will be done at the normal school. Graduates of colleges can take elective courses, the time required being determined by their respective qualifications.

EXTENSION WORK.

A new opportunity to participate in social service was made known to us by Mr. J. E. Warren, agent of the Board of Education, and immediately taken. In the town of New Ashford there is only one school, and this of such a character as to need encouragement through new forms of effort. Fortunately, the pecuniary aid furnished by the State is sufficient to make success possible. The teacher, Miss McBain, spends two or three days several times a month participating in the industrial and other work at the training school; normal teachers participate in community meetings and co-operate in the school work; the superintendent, F. B. Van Ornum, promotes the enterprise most heartily; and a new school is arising upon an industrial basis. Cooking, sewing and other indoor forms of manual work are in operation. Plans for school gardening are in process. Already citizens have made offers of pecuniary and labor assistance. It is known that other similar cases will occur within a short time, and the school is already providing for these opportunities.

ENTERING CLASS.

Eighty-one new students joined the school in September, necessitating a very large and serious withdrawal of the normal teachers from work with the grades; and if the attendance continues to increase, new teachers will be necessary in September, 1909.

STATISTICS.

Statistics for the year ending Aug. 31, 1908, are as follows: —

1. Number admitted in September, 1907: regular courses, 48; special courses, 4; vacation study, 17, — all women. Whole number enrolled during the year, 100. Number of graduates, 22.
2. Average age of entering class, 19 years, 6 months.
3. Whole number of students who have been members of the school, 632.
4. Number of students from Massachusetts: Berkshire County, 59; Franklin County, 18; Hampshire County, 10; Hampden County, 1; Middlesex County, 1; Worcester County, 2; Connecticut, 2; New York, 2; Vermont, 4; Maine, 1. Cities and towns represented: Massachusetts, 35; scattering, 6.

5. Occupation of parents: farmers, 27; superintendents and foremen, 6; grocers, 3; laborers, 2; carpenters, 4; furniture dealers, 2; merchants, 3; livery stable proprietor, high school principal, piano agent, inspector of cloth, jeweler, wholesale grocer, engineer, lumberman, insurance agent, barber, gas business, janitor, loom fixer, boiler maker, trainman, color mixer, cattle dealer, clergyman, chair manufacturer, doctor, gardener, bricklayer, painter, plumber, railroad agent, millwright, fireman, boiler tender, geologist, accountant, bookkeeper, each 1; unknown, 2; deceased, 20.

FRANK F. MURDOCK,
Principal.

STATE NORMAL SCHOOL, SALEM.

J. ASBURY PITMAN, PRINCIPAL.

INSTRUCTORS IN THE NORMAL SCHOOL.

JOSEPH ASBURY PITMAN,	Theory and practice of teaching, history of education.
HARRIET LAURA MARTIN,	Algebra, geometry, Latin.
JESSIE PUTNAM LEAROYD, ¹	English, ² gardening.
CHARLES EUGENE ADAMS, ¹	Geology, physics, chemistry.
CHARLES FREDERICK WHITNEY, ¹	Manual arts.
MARY ALICE WARREN, ¹	Nature study, physiology, physical training.
GERTRUDE BROWN GOLDSMITH, A.B.,	Biology, psychology.
FRANCES BOUTELLE DEANE, ¹	History, English, librarian.
HELEN HOOD ROGERS, ¹	Reading, physical training.
CASSIE LUCRETIA PAINE,	Supervisor of training.
FRED WILLIS ARCHIBALD, ¹	Music.
HARRIET EMMA PEET, ¹	Literature, arithmetic.
SUMNER WEBSTER CUSHING, S.B., ¹	Geology, geography, commercial geography.
FREDERICK WALTER RIED, ¹	Manual training.
ARTHUR JOHN MEREDITH, Ph.B.,	Bookkeeping, commercial law, commercial arithmetic, penmanship.
MARY LOUISE SMITH, A.B.,	Stenography, typewriting, commercial correspondence.
LOUISE CAROLINE WELLMAN,	Secretary, typewriting.

INSTRUCTORS IN THE PRACTICE SCHOOLS.

ALTON C. CHURBUCK,	Principal.
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The Practice School.

ALTON CLIFFORD CHURBUCK,	Eighth grade.
MAUDE SARAH WHEELER,	Seventh grade.
MARJORIE HUSE,	Sixth grade.
BESSIE JORDAN WELCH,	Fifth grade.
MABEL LUCILE HOBBS, ³	Fourth grade.
MARY ELIZABETH JAMES,	Third grade.
DELIA FRANCES CAMPBELL,	Second grade.
HELEN MERRILL DILLINGHAM,	First grade.
LOUISE FARRINGTON,	Kindergarten.

The Bertram School.

SUSAN ELLEN ROPES,	Second grade.
MILDRED MAY MOSES,	First grade.
ALICE MARTHA WYMAN,	Kindergarten.

The Farms School.

BERTINA DYER,	Ungraded.
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¹ These instructors also teach and supervise in the practice school.
² Including the English of the commercial department.
³ Absent on leave. Substitute, Sallimae Morrill Dennett.

CHANGES IN THE FACULTY.

The following changes in the faculty have occurred during the year: —

Mr. William C. Moore, instructor in geography, who had been absent on leave for the purpose of post-graduate study, resigned to become professor of education at Mount Holyoke College. He was succeeded by Mr. Sumner W. Cushing, his substitute during his absence. Mr. Cushing is a graduate of the Bridgewater Normal School and of Harvard College. He has also studied at Brown University and has pursued the study of his special subject abroad.

Mr. Charles E. Newell, instructor in manual training, has accepted the position of supervisor of drawing at Springfield; and Mr. Frederick W. Ried, formerly teacher of manual arts at Lancaster and Leominster, has been chosen to succeed him. Mr. Ried is a graduate of the Normal Art School.

Mr. Arthur J. Meredith, of the Atlantic City high school, has been placed at the head of the commercial department. Mr. Meredith is a graduate of Wesleyan University and of Comer's Commercial School. He has also pursued pedagogical courses at Harvard University.

Miss Mary L. Smith, of the Ithaca high school, has been chosen to give the instruction in stenography and typewriting. She is a graduate of the State Normal University at Ypsilanti, Mich., and of the University of Michigan.

Miss Bertina Dyer, a graduate of the Bridgewater Normal School, has been placed in charge of the model rural school. She brings to the work the successful experience of several years in schools of a similar character and in the Perkins Institution for the Blind.

Miss Mildred M. Moses, of the Morse School, Somerville, has been appointed to teach in the first grade in the Bertram School. Her professional training was received under the direction of the Chicago Kindergarten Association.

Miss Mabel L. Hobbs, of the fourth grade in the practice school, is absent on leave and is taking an advanced course of study at the Teachers' College. Miss Sallimae M. Dennett, a graduate of this school and recently a teacher at Jacob Tome Institute, has been engaged as substitute for the year.

THE RURAL SCHOOL.

In April, arrangements were carried into effect for the joint maintenance of the Farms School, in Marblehead, as a model ungraded school. The school is ideal in its location and in its environment, the building is modern, and the membership is such as to make it a typical rural school. At present there are 40 pupils, corresponding in their ages to the children in the first six classes in the graded schools of the town. Each member of the senior class in the normal school is expected to spend one week in observation and practice in this school. This experience is valuable to all, but especially so to those to whom conditions in rural schools are wholly unfamiliar, and whose professional work will begin in schools of similar character.

THE COMMERCIAL DEPARTMENT.

The most important event of the year has been the establishment of a department for the training of teachers of commercial branches.

The equipment is such as to combine the atmosphere of the business office with that of the school. The instructors who have been selected to direct the work of this department have had the benefit of both college and professional training and of experience in business offices. The regular course of instruction covers a period of two years, and includes all the subjects usually taught in commercial schools and commercial departments of high schools, as well as courses in psychology, pedagogy and history of education. The course also includes, either as elective or as required subjects, some instruction in common with students in the regular elementary course. A special elective course of one year is open to advanced students.

Through an arrangement with the Salem Commercial School, opportunity is here afforded for observation; and the school committee of the city of Salem has permitted the use of the commercial department of the high school for both observation and practice in teaching. These privileges have been granted without expense to the State.

The opening of this department has been met with a most gratifying response. There are now enrolled 62 students, 40 of whom are pursuing the full course. The membership in the

advanced course includes graduates of colleges and normal schools and of private commercial schools, many of whom have had experience in business offices or as teachers in elementary and high schools.

LECTURES AND ENTERTAINMENTS.

The following lectures and musical entertainments have been important contributions to the general course of instruction: —

The Rural School, — Hon. Payson Smith.

Beethoven Program, — Miss Pearl Brice, violinist; Miss Myra Winslow, pianist.

Abraham Lincoln, — Rev. Alexander Blackburn, D.D.

The Use and the Abuse of the Ideal, — Mr. E. Harlow Russell.

Annual Concert, — The Glee Club.

The Function of the School in Training for Right Conduct, — Margaret E. Schallenberger.

Japan and the Japanese, — Prof. Edward S. Morse.

Household Arts of Japan, — Prof. Edward S. Morse.

The Rural School, — Mr. Grenville T. Fletcher.

Interpretative Reading: The Rivals, — Mr. Henry Lawrence Southwick.

Memorial Day Address, — James H. Wolff, Esq.

Graduation Address: The Training of Purpose, — Mr. Joseph Lee.

Music and Verse in the Public School, — Mrs. Jessie L. Gaynor; Mrs. Alice C. D. Riley.

Illustrative Sketching, — Mr. Frederic L. Burnham.

Loyalty, — Mrs. Ella Lyman Cabot.

ACKNOWLEDGMENTS.

The following gifts to the school are gratefully acknowledged: valuable books, from Dr. James L. Hill and Mr. Frederick W. Ried; copper jardiniere, stand and plant, from the junior class of 1907-08; an imported photograph of the Laocoön group, from Hon. Robert S. Rantoul; and five photogravures, — Hope, by Burne-Jones; The Passage, by Corot; A Halt in the Desert, by Schreyer; The Temple of Castor and Pollux; The Parthenon, — for the principal's office, from the class of 1908.

IMPROVEMENT OF THE GROUNDS.

Under the direction of a landscape architect, the improvement of the grounds has been carried steadily forward, as funds

would permit, until the work is now practically complete. The result is not only to the advantage of all directly connected with the school, but is a source of satisfaction to the residents of that part of the city in which the school is located. The architect's plan included suitable provisions for a large and well-equipped playground. The equipment, including simple apparatus for an out-door gymnasium, has afforded the motive for much of the work in manual training performed by the boys of the eighth grade in the practice school during the past year.

DR. RICHARD EDWARDS.

Dr. Richard Edwards, principal of the school from its opening in 1854 until September, 1857, passed away at his home in Bloomington, Ill., March 7, 1908. As founder of the St. Louis Normal School, in 1857, principal of the Illinois State Normal University, 1857-62, and State Superintendent of Public Instruction in Illinois, 1887-91, he rendered conspicuous service to the cause of education in the west. His interest in this school was life-long, and his presence and words at the semicentennial celebration, in 1904, were an inspiration to his listeners.

STATISTICS.

1. The whole number of students in attendance for the year ending July 1, 1908, was 170. Of these, 94 came from Essex County, 64 from Middlesex County, 3 from Suffolk County, 1 from Barnstable County. From the State of New Hampshire there were 5; from Vermont, 2; from Maine, 1. Since the school was established in 1854 there have been 5,531 students enrolled, of whom 2,992 have been graduated from regular courses, and 51 have received certificates for work done as special students. For the full period of fifty-four years, 55 per cent. of those who entered have received diplomas or certificates, and 85.7 per cent. of those entering during the past three years have successfully completed their courses.

2. The number of new students admitted to the school during the year was 90, of whom 4 were special students. Among them there were 9 who had had experience in teaching. Of the new students, 16 came from Cambridge; 13 from Salem; 7 from Malden; 5 each from Peabody, Lynn and Beverly; 3 each from Newburyport, Amesbury, Melrose and Danvers; 2 each from Reading, Somerville, Revere, Swampscott and Everett; 1 each from Wakefield, Chelsea, Gloucester, Topsfield, Pigeon Cove, Hamilton, Haverhill, Ipswich, Medford, Grove-

land, Rockport and Andover. There were also 3 from New Hampshire and 2 from Vermont. The average age of the members of the junior class at the opening of the school year was 18.6 years.

3. The occupations of the fathers of the new students were as follows: mechanics, 10; manufacturers, 8; superintendents and foremen, 7; clerks, plumbers, carpenters, 6 each; farmers, merchants, 5 each; contractors, laborers, 4 each; salesmen, blacksmiths, 2 each; lawyers, teachers, clergymen, artists, engineers, engine dispatchers, gardeners, engravers, barbers, assessors, painters, printers, bakers, 1 each; retired, 1; not living, 10; unknown, 1.

4. The number of graduates June 23, 1908, was 60, and 3 candidates received certificates for the completion of a year's special work.

ELLA LYMAN CABOT,

J. D. MILLER,

Board of Visitors.

STATE NORMAL SCHOOL, WESTFIELD.

CLARENCE A. BRODEUR, PRINCIPAL.

INSTRUCTORS IN THE NORMAL SCHOOL.

CLARENCE A. BRODEUR,	Pedagogy, school law, school management.
LEWIS B. ALLYN,	Mathematics, chemistry, physics.
EDITH L. CUMMINGS,	Gymnastics, manual training.
FREDERIC GOODWIN,	Vocal music.
JOHN C. HOCKENBERRY,	Psychology, history of education, geography.
Mrs. ADELINE A. KNIGHT,	English, literature, history.
LOUIS G. MONTÉ,	Drawing.
CHARLES B. WILSON,	Natural science.

TRAINING SCHOOL.

GEORGE W. WINSLOW,	Principal.
A. ANNETTE FOX,	Eighth grade.
ALICE M. WINSLOW,	Eighth grade.
ANNA M. DOWNEY,	Seventh grade.
CLARA L. BUSH,	Seventh grade.
LUCIA A. COLEMAN,	Sixth grade.
ELLA J. DOWNEY,	Sixth grade.
MAY J. GROUT,	Fifth grade.
EDITH M. ROBBINS,	Fifth grade.
ELIZA CONVERSE,	Fourth grade.
FRANCES L. FOSTER,	Third grade.
FLORENCE P. AXTELLE,	Second grade.
EUNICE M. BEEBE,	First grade.
EMMA L. HAMMOND,	Kindergarten.

CHANGES IN FACULTY.

The annual report of the Board of Visitors records with deep regret the resignation of Mr. Will S. Monroe, for twelve years head of the department of psychology. Mr. Monroe is a graduate of Stanford University, has studied at Leipzig and Jena, as well as in the universities of Paris and Grenoble. In addition to this formal preparation, he is a close student of educational movements and tendencies. As an author of several important scholarly, professional and literary books, he has increased the fame of the school. His students have been led to read widely, to use books intelligently and to present the results of investigation effectively. His departure from this Commonwealth is a distinct loss to the educational life of New

England, for which the good fortune of the Montclair (N. J.) Normal School will be scant compensation.

Previous to Mr. Monroe's departure, an effort was made to express the appreciation and esteem of co-workers and friends. On November 7 he was given a complimentary dinner in Boston, at which a notable company did him honor. On November 13 a farewell reception in his honor was held at the normal school. Five hundred guests from Westfield and surrounding towns were present.

Mr. Monroe's place on the faculty has been taken by Mr. John Coulter Hockenberry, a graduate of the California (Pa.) Normal School, the West Chester (Pa.) Normal School, Indiana University, and a Doctor of Philosophy from the University of Pennsylvania. Mr. Hockenberry has spent a year in study in Germany and France, and has recently published a work on "Rural Schools in the United States." He comes to Westfield from the department of psychology in the State Normal School of California, Pa.

At the end of the summer vacation the faculty of the training school was changed. Miss Mary G. Shea, teacher in grade 5, resigned, and her place was filled by the election of Miss May T. Grout, a student in Smith College for two years and a graduate of the Bridgewater Normal School; and Miss Metta D. Bradstreet, departmental teacher of drawing, was succeeded by Miss Clara L. Bush, a graduate of this school.

IMPROVEMENTS.

During the past year the electrical wiring and equipment of the normal school building has been completed. This work was begun four years ago. It has cost upwards of \$2,000, and has been paid for from the general appropriation for the school.

Through the generosity of the last Legislature, a special appropriation of \$5,000 was granted and has been used to decorate the walls of the three buildings which comprise the equipment. With the exception of the third floor of the training school building, the walls have been painted in suitable harmonious colors. The work was done by day labor and under the direction of Mr. Louis G. Monté, teacher of drawing in the normal school.

The assembly hall has been beautified not only by the attractive coloring of the walls, but by the addition of many pictures, reproductions of great masterpieces.

LECTURES, ETC.

The following lectures and concerts have been given: —

Indian Musicale, arranged by Messrs. Will S. Monroe and Frederic Goodwin; illustrative selections by Mr. and Mrs. Frederic Goodwin, Miss Louise Arnold; violin solos by Miss Laura Jones, with Miss Mary Steele, accompanist.

The Parthenon, — an illustrated lecture by Prof. Alfred Vance Churchill, Smith College.

Diseases of the Schoolroom, — a lecture by Dr. A. Y. Schoonmaker, chairman Board of Health, Westfield.

Sanitary Science in the Schoolroom, — a lecture by Dr. Fred P. Lowenstein, Westfield.

Scotch Poetry and Prose, — a series of readings in the Scotch dialect by Miss Mary F. W. Anderson and Mr. John R. Anderson of Cambridge.

The Ring and the Book, — a lecture by Prof. Edward Howard Griggs of Montclair, N. J.

A Plan for Moral Training for the Public Schools, — a lecture by Miss Jane Brownlee, Toledo, O.

Through Culture to Power, — graduation address by Rev. W. C. Gordon, Auburndale, Mass.

STATISTICS.

1. Number of pupils admitted to the Westfield Normal School since its organization, 4,987. Number graduated since 1855, 2,095. Number graduated in June, 1908, 84. Number rejected or who did not enter, 13. Number entering in September, 1908, 74.

2. Average age of pupils admitted in 1908, 18 years, 5 months, 14 days.

3. Residences, by towns, of those who entered in September, 1908: Agawam, 2; Amherst, 2; Barre, 1; Brattleboro, Vt., 1; Brimfield, 1; Chester, 1; Chicopee, 1; Easthampton, 1; Enfield, 1; Gardner, 1; Hadley, 1; Holyoke, 6; Lee, 2; Monson, 2; Northbridge, 1; North Conway, N. H., 1; Norwich, Conn., 1; Palmer, Pittsfield, 1; Revere, 1; Somersworth, N. H., 1; South Windsor, Conn., 1; Springfield, 14; Springfield, Vt., 1; Ware, 3; Westerly, R. I., 1; Westfield, 17; Westminster, Vt., 1; West Springfield, 3.

4. Residences, by counties, of those who entered in September, 1908: Berkshire, 3; Hampden, 50; Hampshire, 8; Suffolk, 1; Worcester, 3.

5. Occupations of parents: city officials, 4; clerks and salesmen,

harness makers and machinists, 3 each; farmers, 10; laborers, 13; carpenters, contractors and harness makers, 2 each; merchants, 9; baker, barber, chauffeur, lawyer, manufacturer, printer, tailor, and teacher, 1 each.

A. E. WINSHIP,
CLINTON Q. RICHMOND,
Board of Visitors.

STATE NORMAL SCHOOL, WORCESTER.

E. HARLOW RUSSELL, PRINCIPAL.

INSTRUCTORS.

E. HARLOW RUSSELL,	Theory and art of teaching, reading, psychology of childhood.
REBECCA JONES,	Elementary methods, supervision of apprentices, sewing.
HELEN F. MARSH,	Music, drawing.
ARABELLA H. TUCKER (clerk),	History of education, botany, penmanship.
ANNA P. SMITH (librarian),	Mathematics, supervision of apprentices.
AMY L. BOYDEN,	Teacher of primary class, elementary methods.
HENRIETTA A. MURRAY,	Gymnastics, school games.
HORACE G. BROWN,	Literature, English grammar, history.
EDWARD L. SUMNER,	Choral singing.
ROBERT S. BALDWIN,	English, civil government, Latin.
LEE RUSSELL,	Chemistry, mineralogy, supervision of apprentices.
ROBERT M. BROWN,	Mathematics, physics, geography.
MARY A. CHARTERIS, M.D.,	Physical examiner.
J. MACE ANDRESS,	Pedagogical psychology, school hygiene.
ANNIE L. TURNER,	Kindergartner.

INTRODUCTORY.

The year covered by this report (1907-08) has been a year strictly devoted to typical normal school work, so far as the wide divergence of normal school ideals and practice in this country justifies the application of the term "typical" to the work of any one school. That the best or final means for the training of teachers for our public schools have not been fully worked out and agreed upon is sufficiently apparent in the fact of this very divergence, coupled with the confidence so often shown by those who practice widely different or even opposite methods of procedure. Our ends are the same; but as to the means and proportions of the processes by which these ends may be most effectively and economically secured there are hardly two persons in the service who are found fully to agree. Under these conditions it would seem wise to adopt a policy of management which should permit, and perhaps encourage, a degree of individuality and even a spirit of experimentation.

Such a liberal policy has long prevailed in Massachusetts, and there is much evidence that the exercise of it has helped to give distinction to her normal schools. In recent years there is less talk of making them "uniform" than was heard when the horizon of normal training was much narrower than it has since become, and when here and there a self-styled "educator" assumed to enjoy almost a monopoly of the subject. In almost every normal school of the present day may be found one or more features upon which, perhaps by way of experiment, special stress is laid. At Worcester, for example, especially in comparatively recent years, the element of practice-teaching has been much emphasized in the somewhat novel form of "apprenticeship" in the public schools of that city, with the view of placing the pupil-teacher as nearly as possible in such actual surroundings as those in which she must soon begin her independent work. This method has found favor and adoption in several other similar schools located in towns large enough to afford suitable opportunity for its employment. Mention is made of it here simply to illustrate the point that normal training has not yet reached its final stage, but is still a growing art, with an inviting future before it, and that experiments should be judged by their results, rather than by *a priori* comparison with what may have long been the practice. Education, like agriculture, is an ancient art, and, no less than agriculture, is still beset with unsolved problems; so that it has been suggested that a normal school would do well to consider itself in the light of an educational experiment station, and not as a tribunal of last appeal in all questions of the theory and practice of teaching.

EMPLOYMENT OF GRADUATES.

Of the graduates of last June a larger number than ever before had already been engaged as teachers at the time of receiving their diplomas, and by the end of the summer vacation in September many superintendents had applied to us in vain for candidates.

MANUAL TRAINING.

As intimated in our last report, the correlation of drawing and manual training in due proportion to other subjects is a

matter difficult to settle to our satisfaction. We see no way but to go on experimenting with it, under such light as observation and experience can give. With something of the fundamental principles of construction and of applied design, we can at least qualify our students to teach and illustrate the elements of the art, under the supervision of a special instructor, and prepare them to acquire further knowledge and skill whenever the demand for it shall be laid upon them.

NATURE STUDY.

The work in nature study this year took the direction of window gardening, and easily allied itself with the course in botany, to which it formed an admirable supplement or extension, while at the same time following a path of its own making. The principal aim was to transplant during the autumn specimens of the more common wild species found in our pastures, woods and meadows, and see how many could be made to adopt in-door conditions, and become, in a manner, "household pets" of the students. This had the advantage of being, necessarily, individual work, and it was also something which the students when they should become teachers could easily carry into their schools, with the effect of familiarizing children with the interest and beauty that lie in the surroundings amid which they will pass their lives. The experiment discovered great difference in the viability or aptitude of various wild plants to bear the change to domestication. Some languished and died as of homesickness, while others flourished and burst into joyous bloom. Scores of species were thus gathered, and a great multitude of specimens, in pots, pans, fern-globes, boxes, etc., adorned windows and tables throughout the building, attesting the interest felt in the experiment.

SCHOOL HYGIENE.

In view of the awakened attention to hygiene, general and special, in the community, we are giving more time to that branch than ever before, and are making the subject of chemistry directly contributory to it by experimental study of air, water, foods, combustion, etc. This course is laying a scientific foundation upon which may be intelligibly unified a great

number of the rules and maxims that must always constitute for most people what are called "the laws of health."

THE FACULTY.

Two new instructors have been added to the staff, to fill vacancies. Miss Helen L. Brown and Miss Olive Russell, after several years of faithful and acceptable service as kindergartners, resigned their positions in June, and have been succeeded by Miss Annie L. Turner of Boston, an experienced and highly successful kindergartner, who has taken hold of her work with a spirit and in a manner that promises gratifying results. Mr. J. Mace Andress, who has enjoyed unusual advantages of study and training for normal school work, having taken degrees at the Michigan Normal College at Ypsilanti, at Chicago University and at Harvard University, takes the place of Dr. Frank Drew, whose resignation took effect at the end of the school year in June. The qualifications in educational theory and practice which Mr. Andress brings to his work give assurance of the value that his service will bring to the normal school.

STUDENTS.

Our numbers are considerably in excess of those reported a year ago, showing a gain in attendance of more than 20 per cent., while the age, scholarship and character of the entering class appear to sustain the standard long maintained in this school. The proportion of young men is much larger than for several years past, as is also the number of candidates admitted upon high school certificates of superior scholarship.

BOARDING ACCOMMODATIONS.

The principal continues to urge upon the visitors his conviction that the future prosperity of this school, at least so far as attendance is concerned, requires adequate provision to be made for the boarding of students from a distance. Suitable boarding places in private families can no longer be found in the neighborhood of the school, and our grounds, five acres in extent, afford an eligible site for the erection of such a boarding house as those already provided for a majority of the normal schools of the State.

STATISTICS.

1. Total number of students for the year ending in June, 1908, 113. Number of graduate students in English literature (spring term), 58.
2. Number admitted in June and September, 1908, 59. Number admitted since the beginning of the school in 1874, 2,092.
3. Average age of students last admitted, 18 years, 8 months.
4. Residences of students last admitted: Worcester County, 58; New Hampshire, 1; total, 59.
5. Occupations of pupils' parents: mechanics, 23; salesmen, 7; foremen, 6; agents, 3; farmers, 2; manufacturers, 2; merchants, 2; policemen, 2; clergyman, engineer, brewer, bookkeeper, contractor, teamster, fireman, caretaker, 1 each; not employed, 1; unknown, 3; total, 59.
6. Number in the graduating class, June, 1908, 34. Number of graduates since 1876, 1,253.
7. Average age of the graduating class, June, 1908, 21 years, 3 months.
8. Library: reference books reported last year, 7,674; volumes added since, 384; total, 8,058. Text books reported last year, 8,392; volumes added since, 344; volumes discarded as worn out or out of date, 2,111; total, 6,625. Whole number of volumes now in the library, 14,683.

GEORGE I. ALDRICH,
ELLA LYMAN CABOT,
Board of Visitors.

STATE NORMAL ART SCHOOL, BOSTON.

GEORGE H. BARTLETT, PRINCIPAL.

INSTRUCTORS.

GEORGE H. BARTLETT,	Lecturer on historic ornament, instructor in the arts of lithography, the modern processes of reproduction, blackboard illustration.
ALBERT H. MUNSELL,	Drawing and painting from the antique figure and living model, composition, artistic anatomy.
EDWARD W. D. HAMILTON,	} Drawing and painting from the antique figure and living model.
ERNEST L. MAJOR,	
JOSEPH R. DECAMP,	Painting from the living model, portraiture.
ANSON K. CROSS,	Freehand drawing, light and shade.
RICHARD ANDREW,	Perspective, model drawing theory.
ETHEL G. BARTLETT,	Freehand drawing, light and shade.
MERCY A. BAILEY,	Water-color painting.
VESPER L. GEORGE,	Design.
LAURIN H. MARTIN,	Applied design, laboratory work.
GEORGE JEPSON,	Descriptive geometry, mechanical drawing and laboratory work.
CYRUS E. DALLIN,	Modeling from antique and life, composition.
ANNIE E. BLAKE,	Modeling and casting, design in the round.
RALPH E. SAWYER,	Building construction, architectural drawing and design.
ALBERT S. KENDALL,	Applied mechanics.
JOSEPH H. HAINES,	Sloyd and mechanic arts.
FREDERIC L. BURNHAM,	Supervision.
MARY G. BATCHELOR,	Teaching exercises, graded illustrative work, drawing in relation to other studies.
JOHN L. FRISBIE,	Ship draughting.

EVENING CLASSES.

The most notable advance of the school this year was its opening of evening sessions for teachers, especially for those coming from the suburbs of Boston. The demand for these classes had grown so steadily and strongly that it was deemed no longer advisable to refuse compliance with the many personal requests and petitions of kindergartners and grade teachers who desired further instruction, that they might be better fitted to meet the demands now made upon teachers of drawing, not only in relation to pictorial, constructive and mechanical work,

but also in regard to the cultivation of a love of art and beauty in their pupils.

The classes meet twice a week, Wednesday and Friday evenings, from 7 to 9 o'clock. Mr. Bartlett, as principal, has supervision of all the classes, specializing himself in blackboard drawing; Mr. Vesper L. George has the class in design; Mr. Richard Andrew and Mr. Ernest L. Major take the practice and theory of model drawing and light and shade; Mr. Jepson has charge of mechanical drawing; Mr. Albert H. Munsell will give six talks on the theory of color.

It has been necessary to limit the attendance in these classes to 100, as the current appropriation for the school does not admit of the engagement of a larger force of teachers. Each applicant has shown herself all the more zealous to learn because of the knowledge she already possessed.

AFTERNOON SESSIONS.

Permission having been received for extension of the school hours in certain branches of instruction, it is gratifying to record the fidelity of the pupils and their greater acquirements in consequence of longer hours of study, which have impaired neither health nor eyesight. The present pressure for more industrial study has brought into fuller realization the fact that all the branches taught at the Art School ever since its inception have held and still continue to hold a direct, vital relation to industries. The special significance of the term "art" is not lessened by the breadth of the term "industries."

The advanced portraiture class, under the instruction of Mr. Joseph De Camp, finds its correlative in the advanced technical instruction given by Mr. Bartlett in the various branches of the art of lithography, and of drawing for the modern processes of reproduction, by which the students can become teachers of these subjects or practise them professionally.

. A MODEL SCHOOL.

The Art School greatly needs an allied school, such as obtains in other normal schools under the name of practice or model schools. The school committees of Boston and of two or three surrounding towns for several years have kindly granted per-

mission to the Normal Art School to send the pupils of its public school class to observe and assist in teaching drawing in various grammar grades. But such opportunities do not have the consecutive strength which could be developed if teachers from the Normal Art School could supervise their pupils in the actual work of teaching real children. The Art School needs the permanent appointment unto itself of some one school as its model school, in which its pupils who are to be teachers should organize and teach methods of drawing, and should arrange courses and programs of work under the supervision of the Art School instructors as their critics.

MORE ROOM.

The lack of sufficient space is painfully evident at the Art School, as proved by the partitioning off of part of the space of the main corridor on the ground floor for laboratory work. Admission has been refused to a large number of pupils fully qualified to enter the school, because it is not safe to accommodate therein more than 350, the present number of students. Shall the alternative be that of a new building, or of keeping school in the old one all day long and every day, with relays of instructors?

THE FACULTY.

The growth of the school is largely due to the wide reputation of its faculty. Nearly all its members are men and women of high repute in their various spheres of art and industries, independent of any estimate of their ability as teachers at the school. It is an honor to the school when such a sculptor as Cyrus E. Dallin is granted a year's leave of absence, that he may make studies in Paris, France, for his soldiers' monument to be erected in Syracuse, N. Y. Equal honor was it when Mr. Joseph De Camp was chosen by the Harvard Union this autumn to paint a portrait of President Roosevelt. The reflex action of such events stimulates the pupils to do their very best for such masters and for the school in which they teach, the number of purely social good times in the school decreasing as its standards for attainment advance.

PRIMARY DESIGN OF THE SCHOOL.

This, as annually set forth in its catalogue, is the training of "competent teachers." The school has steadily fulfilled this purpose. While its graduates mainly have been teachers or supervisors of various grades in the public schools of the State, there have always been those who have followed technical pursuits. Within the last few years the school has emphasized the necessity of creating teachers of teachers in both pure and applied art. As sure an impulse to creative beauty is found in mechanical and constructive work as in the rendering of portraiture or landscape. The school, conservative in holding on to what is best in the past, is modern in its application of art to present industries, the development of future needs and the furtherance of intelligent self-support. The training of students in the logical relation of art to industry is the more modern way of describing the purpose for which the school was established in 1873.

GIFTS.

From the graduating class of 1908 was received a photographic reproduction of a painting by Franz Hals, entitled "Portrait of a Gentleman."

STATISTICS.

The statistics for the school from Sept. 28, 1907, to June 18, 1908, are as follows: —

1. Total number of students, 356, — men, 53; women, 303.
2. Average age of pupils who entered for the first time, 19.5 years.
3. Graduates in June, 1908: public school course, 21; course in drawing and painting, 15; course in mechanical drawing, 7; course in modeling and design in the round, 2; course in decorative and applied design, 4; total, 49.
4. Number of students from the several counties of the State: Barnstable, 1; Berkshire, 1; Bristol, 6; Dukes, 2; Franklin, 2; Essex, 42; Hampden, 7; Hampshire, 1; Middlesex, 100; Norfolk, 20; Plymouth, 26; Suffolk, 108; Worcester, 24; total, 340. Students from other States are distributed as follows: Maine, 4; New Hampshire, 7; Vermont, 1; Canada, 1; California, 1; Indiana, 1; Connecticut, 1; total, 16. Total from other States and Massachusetts, 356.
5. Occupations of fathers of students: professions, 16; teachers, 2;

real estate and insurance, 4; contractors and builders, 6; merchants and traders, 36; manufacturers, 9; commercial business, 27; farmers, 12; mechanics, 51; other callings, 110; total, 273. Retired, 21; deceased, 62; complete total, 356.

KATE GANNETT WELLS,
THOMAS B. FITZPATRICK,
CARROLL D. WRIGHT,
Board of Visitors.

STATE NORMAL SCHOOLS.
Table showing admissions and attendance for 1908, with other normal school data.

NORMAL SCHOOLS.	TEACHERS IN NORMAL SCHOOLS.		TEACHERS IN MODEL AND FRACTIONAL SCHOOLS.		ADMITTED TO —		NUMBER OF DIFFERENT STUDENTS FOR 1907-1908.			ATTENDANCE DEC. 1, 1908.			Number of graduates in 1908.	Different students from the beginning.	Graduates from the beginning.
	Men.	Women.	Men.	Women.	Entering class.	Higher or special classes.	Men.	Women.	Totals.	Men.	Women.	Totals.			
Bridgewater, . . .	7	10	1	12	105	16	28	242	270	30	225	255	105	5,998	3,921
Fitchburg. . .	4	9	4	20	88	5	-	177	177	-	191	191	58	816	435
Framingham, . . .	5	10	-	10	99	3	-	247	247	-	255	255	61	4,950	2,769
Hyannis, . . .	3	4	1	5	12	9	7	38	45 ¹	12	34	46	18	406	219
Lowell, . . .	3	7	4	44	79	1	-	133	133	-	143	143	65	941	603
North Adams, . . .	5	5	-	20	70	9	-	100	100	-	125	125	22	694	336
Salem, . . .	7	10	1	12	140	27	3	167	170	7	233	240	60	5,531	2,992
Westfield, . . .	6	2	1	13	74	6	2	145	147	1	152	153	68	4,987	2,095
Worcester, . . .	7	5	-	2	58	1	3	110	113	11	123	134	34	2,092	1,253
Normal Art (Boston), . . .	16	4	-	-	82	-	53	303	356	56	278	334	49	3,834	1,421
Totals, . . .	63	66	12	138	807	77	96	1,662	1,758	117	1,759	1,876	540	30,249	16,044

¹ In addition, summer session students, 180.

SEVENTY-SECOND ANNUAL REPORT

OF THE

SECRETARY OF THE BOARD.

SEVENTY-SECOND ANNUAL REPORT

OF THE

SECRETARY OF THE BOARD.

SECRETARY'S REPORT.

To the Board of Education and the Legislature.

I have the honor to submit the seventy-second annual report of the secretary upon the condition and needs of the public schools of the State. In accordance with the law, the usual returns have been made by school committees to the office of the Board, and the usual abstract prepared.

SUMMARY OF STATISTICS FOR 1907-1908.

I. Number of Public Day Schools.

- 1. Number of towns, 321; cities, 33. Total, 354.
All have made the annual returns required by law.
- 2. Number of public schools based on the single class room as the unit of comparison, 11,556
Increase from the preceding year, . . . 187

II. Average Number of Months the Public Schools have been kept.

- 1. Average number of months the public schools have been kept during the year, $9\frac{8}{10}$
Increase $\frac{1}{10}$
- 2. Average number of months the high schools have been kept during the year, $9\frac{1}{10}$
Increase, $\frac{1}{10}$

III. School Census Data.

- 1. Number of persons in the State Sept. 1, 1907, between the ages of seven and fourteen years: males, 195,760; females, 194,475; total, 390,235
Increase in the total, 8,530
- 2. Number of persons in the State Sept. 1, 1907, between the ages of five and fifteen years: males, 269,394; females, 269,260; total, 538,654
Increase in the total, 7,577

3. Number of illiterate minors in the State Sept. 1, 1907, over fourteen years of age: males, 4,825; females, 4,148; total,	8,973
Increase in the total,	1,055

IV. Public School Enrollment and Attendance Data.¹

1. Number of pupils between seven and fourteen years of age attending the public schools during the school year,	336,106
Increase,	7,010
2. Number of different pupils between five and fifteen years of age attending the public schools during the school year,	462,741
Increase,	4,013
3. Number of pupils under five years of age attending the public schools during the school year,	11,486
Decrease,	420
4. Number of pupils over fifteen years of age attending the public schools during the school year,	50,092
Increase,	1,094
5. Total enrollment of pupils of all ages in the public schools during the school year,	524,319
Increase,	4,687
6. Average membership of pupils in all the public schools during the school year,	466,214
Increase,	5,878
7. Average attendance in all the public schools during the school year,	429,394
Increase,	4,206
8. Percentage of attendance based on the average member- ship, . . . . .	.92
9. Percentage of attendance based on the total enrollment, . . . . .	.82
10. Number graduated from grammar schools during the school year,	22,313
Increase,	401

V. Public School Teachers and their Wages.

1. Number of teachers required in the public schools during the year: men, 1,281; women, 13,497; total,	14,778
Increase,	329
2. Number of teachers in the public schools who have grad- uated from college: in high schools, 1,587; in the elementary schools, 447; total,	2,034
Increase,	112

¹ The enrollment and attendance data are for a school year ending practically in June, 1907.

3. Number of teachers who have graduated from normal schools,	7,448
Increase,	425
4. Average wages of male teachers per month in the public schools,	\$155 95
Increase,	\$2 93
5. Average wages of female teachers per month in the public schools,	\$59 58
Increase,	\$0 96

VI. *Public High Schools.*

1. Number of public high schools,	266
Increase,	0
2. Number of teachers in the high schools,	2,073
Increase,	187
3. Number of pupils in the high schools,	56,527
Increase,	6,590
4. Number of pupils admitted to the freshman class,	18,770
Decrease,	539
5. Number of graduates from high schools,	7,733
Increase,	133
6. Expenditures for high school support,	\$2,862,617 81
Increase,	\$157,804 78

VII. *Public Evening Schools.*

1. Number of cities and towns having public evening schools,	58
Decrease,	1
2. Number of evening schools,	284
Increase,	11
3. Number of teachers,	1,906
Increase,	63
4. Number of different pupils in attendance: males, 32,683; females, 16,778; total,	49,461
Decrease in total,	260
5. Average attendance,	26,444
Increase,	350
6. Expended upon evening schools,	\$312,520 93
Decrease,	\$2,734 14

VIII. *Public Kindergartens.*

1. Number of cities and towns having public kindergartens,	39
Increase,	1
2. Number of public kindergartens,	309
Increase,	12
3. Number of teachers,	540
Increase,	18

4. Number of pupils,	17,257
Increase,	39
5. Cost of public kindergartens,	\$341,719 94
Increase,	\$8,681 62

IX. Cost of the Public Schools for Support.

A. Total expenditure for the <i>support</i> of the public schools, \$14,697,774 67	
Increase,	\$644,875 27

This expenditure is distributed among the following classes indicated in the statutory definition of support: —

1. Teachers' wages,	\$10,683,342 68
Increase,	\$380,455 24
2. Conveyance of pupils,	\$265,574 09
Increase,	\$13,122 98
3. Fuel and care of school premises,	\$1,980,019 73
Increase,	\$151,756 70
4. School committees, clerks, truant officers, etc.,	\$200,953 77
Increase,	\$15,524 67
5. Superintendents of schools,	\$368,102 24
Increase,	\$17,596 92
6. Text-books and supplies,	\$777,710 08
Increase,	\$21,960 59
7. School sundries,	\$422,072 08
Increase,	\$44,458 17

B. Amount included in the total expenditure for <i>support</i> as given under <i>IX.</i> , A, but derived from other sources than local taxation or its equivalent, such as aid from the State, income from local funds, voluntary contributions, etc.,	\$643,624 01
Increase,	\$43,536 80

C. Amount raised by <i>local taxation</i> and expended for the <i>support</i> of public schools, being the total expenditure for such support as given under <i>IX.</i> , A, diminished by contributions for such support from other sources than local taxation as given under <i>IX.</i> , B,	\$14,054,150 66
Increase,	\$601,338 47

X. Cost of the Public Schools for Buildings.

A. Total expenditure for <i>buildings</i> for the public schools, \$3,817,655 07	
Increase,	\$112,882 51

This expenditure is distributed as follows: —

1. New schoolhouses,	\$2,610,432 66
Increase,	\$110,946 71

2. Alterations and permanent im-		
provements,	.	\$719,401 19
Decrease,	.	\$54,424 50
3. Ordinary repairs,	.	\$487,821 22
Increase,	.	\$56,360 30
B. Amount included in the total expenditure for <i>buildings</i>		
for the public schools as given under X., A, but de-		
rived from other sources than local taxation or its		
equivalent,	.	\$4,948 25
Decrease,	.	\$306,146 68
C. Amount raised by <i>local taxation</i> and expended for <i>build-</i>		
<i>ings</i> , being the total expenditure for buildings as given		
under X., A, diminished by contributions for build-		
ings from other sources than local taxation as given		
under X., B,	.	\$3,812,706 82
Increase,	.	\$419,029 19

XI. Total Cost of the Public Schools for Support and Buildings.

1. Total expenditure for <i>support</i> and <i>buildings</i> , for the pub-		
lic schools, that is, for all public school purposes,		\$18,515,429 74
Increase,	.	\$757,757 78
2. Amount included in the total expenditure for <i>support</i>		
and <i>buildings</i> as given under IX., A, and X., A, but		
derived from other sources than local taxation or its		
equivalent,	.	\$648,572 26
Decrease,	.	\$262,609 88
3. Amount raised by <i>local taxation</i> and expended for <i>sup-</i>		
<i>port</i> and <i>buildings</i> , being the total expenditure for these		
purposes as given under IX., A, and X., A, diminished		
by contributions thereto from other sources than local		
taxation or its equivalent, as given under IX., B, and		
X., B,	.	\$17,866,857 48
Increase,	.	\$1,020,367 66

XII. Cost of the Public Schools per Child.

1. Average <i>taxation</i> cost of the public schools for <i>support</i>		
(IX., C) for each child in the state between the ages		
of five and fifteen years (III., 2),	.	\$26 09
Increase,	.	\$0 76
2. Average <i>taxation</i> cost of the public schools for <i>support</i>		
(IX., C) for each child in the average membership of		
the public schools (IV., 6),	.	\$30 15
Increase,	.	\$0 93

3. Average <i>taxation</i> cost of the public schools for <i>support</i> and <i>buildings</i> , that is, for all school purposes (XI., 3), for each child in the State between the ages of five and fifteen years (III., 2),	\$33 17
Increase,	\$1 45
4. Average <i>taxation</i> cost of the public schools for <i>support</i> and <i>buildings</i> , that is, for all school purposes (XI., 3), for each child in the average membership of the public schools (IV., 6),	\$38 32
Increase,	\$1 72
5. Average expenditure on account of the public schools for <i>support</i> and <i>buildings</i> , including <i>voluntary contributions</i> as well as money raised by <i>taxation</i> (XI., 1), for each child in the State between five and fifteen years of age (III., 2),	\$34 37
Increase,	\$0 93
6. Average expenditure on account of public schools for <i>support</i> and <i>buildings</i> , including <i>voluntary contributions</i> as well as money raised by <i>taxation</i> (XI., 1), for each child in the average membership of the public schools (IV., 6),	\$39 71
Increase,	\$1 13

XIII. Percentage of State Valuation expended for Public School Purposes.

1. Percentage of the total State valuation (May 1, 1907) raised by <i>local taxation</i> and expended for the <i>support</i> of the public schools (IX., C), . . . . .	.004 $\frac{00}{100}$ or \$4 00 per \$1,000
Increase, . . . . .	.000 $\frac{5}{100}$ or \$0 05 per \$1,000
2. Percentage of the total State valuation (May 1, 1907) raised by <i>local taxation</i> and expended on the public schools for <i>support</i> and <i>buildings</i> (XI., 3), . . . . .	.005 $\frac{08}{100}$ or \$5 08 per \$1,000
Increase, . . . . .	.000 $\frac{10}{100}$ or \$0 10 per \$1,000

XIV. Vacation schools, 1907.

1. Number of vacation schools supported at public expense,	34
2. Number of cities and towns having vacation schools, . .	11
3. Number of teachers,	278
4. Number of pupils,	14,359
5. Average number of months schools were kept,	1 $\frac{8}{10}$
6. Cost of vacation schools,	\$12,437 09

XV. Academies and Private Schools.

1. Number of incorporated academies,	42
Increase,	1
2. Whole number of pupils in the academies for the year, .	6,072
Increase,	322
3. Amount of tuition paid in the academies during the year, \$	681,871 52
Increase,	\$61,438 11
4. Number of private schools returned,	344
Increase,	30
5. Whole number of pupils in the private schools during the year,	91,722
Increase,	265
6. Amount of tuition paid in private schools (much of it estimated),	\$728,268 14
Decrease,	\$101,784 24

SIGNIFICANCE OF SCHOOL STATISTICS.

When the Massachusetts school fund was established, in 1834, it was made a condition of receiving aid from it that towns should make returns to the State of the school conditions according to forms prescribed by statute (chapter 138, Acts of 1835). From the beginning these returns have been illuminating as to the liberality of public school support and the intelligence with which public money has been expended.

The public school system really dates from this requirement. The knowledge afforded by the returns has guided legislation in its action and has furnished arguments for the advocates of reform. Comparing their own condition with that of other towns, backward communities have been stimulated to increased expenditure. Local pride has combined with legislative requirements to make school practices more and more uniform.

Steadily the general average has been raised in all those elements which go to make a well-ordered school system, — buildings, attendance, length of schooling, equipment, range of studies, qualifications of teachers, methods of instruction and discipline, and supervision.

How the figures annually published by the Board of Education have been used as weapons by the progressive people in the different towns and cities is shown in the earlier years by the reports of the school committees, which must by law accompany

the returns to the State, and in later years by the reports of the superintendents.

The successive reports of a single town may show appeals year after year for better schoolhouses or for better pay for teachers, and then there appear in congratulatory tones chronicles of a new schoolhouse; or long-needed repairs to an old one; or an increased appropriation, allowing a larger weekly stipend for teachers, and the employment, in consequence, of a trained or experienced teacher in place of a novice; or a longer school term; or improved attendance.

The annual school reports of many Massachusetts towns and cities afford excellent material for the study of popular government and show how influence rather than authority has brought about social improvement. The returns also serve to show how social changes are reflected in school conditions, and what new educational agencies are devised to meet new conditions.

Because the care of schoolhouses is now wholly a paid service, and because the newer methods of sanitary heating and ventilation require more fuel and more skilful janitors, the item of expense for fuel and care has steadily increased. Because small schools have been closed and because parents are unwilling to have their children walk far to school, the expense for transportation has grown to a large amount, in some cases equalling or exceeding the cost of instruction. The cost of text-books and supplies now appears as an item of public expense, instead of being concealed in the private accounts of the parents. Foreign immigration and city life have necessitated evening and vacation schools.

EQUALIZATION OF OPPORTUNITIES.

The upbuilding of the Massachusetts school system has been a continuous process of equalizing educational opportunities.

First, opportunities within the towns were equalized by substituting the town for the district as a unit.

Second, by State aid differences between large and small towns, rich and poor towns, have been lessened.

Third, the children of the poor are neither obliged to go without suitable school books nor to receive them as charity from the public.

Fourth, high school opportunities have been secured for all children.

Fifth, all schools have the benefit of professional supervision.

Sixth, by the employment of school physicians and school nurses, effort is now being made to reach those who are suffering from physical and mental disabilities, and to remove some of the obstacles which impede their progress.

Seventh, a beginning has been made to give some vocational equipment to those boys and girls who must leave school, and cannot have that more advanced instruction which is supposed to open the way to wider earning opportunities. Of these last two, I shall speak more at length.

THE NEXT STEP.

There are people who believe that the educational system of the State will not be complete until provision is made at public expense for collegiate, technical and professional instruction. In recent years measures have been introduced into the Legislature looking to this end, and they have commanded much intelligent support at committee hearings. The statement is made that many worthy young men and women are deprived of the advantages of higher education because of limited means. A circular recently issued estimates the number of such as high as 20,000. Comparisons are made between Massachusetts and the western States, which include State universities with practically free tuition in their educational systems, and Massachusetts is said to be behind the age.

Massachusetts has not been wont to count the cost very closely when a great educational need has been made apparent, but it may be well to consider what an education comparable to that now furnished in the colleges and technical schools of the State would probably cost.

In 1904 there were reported 5,518 Massachusetts students in the different New England colleges and technical schools. There are more in 1908. The tuition charges in these varied from \$50 to \$250 a year. Assuming an average of \$100 a year, were the tuition fees remitted or paid by the State, the saving

to the students would be more than half a million of dollars a year. But were the State to undertake to provide instruction in institutions of its own, the cost would be much greater. The tuition fees nowhere pay more than half the cost of maintaining the institution. In Harvard University they pay about 45 per cent. Clark College spends about \$400 per student, and requires a tuition fee of \$50.

The annual cost to the State of providing such educational opportunities as are now provided by the New England colleges for the 5,518 students would be more than a million dollars. This is outside the cost of the plants.

The argument for State support is that many more students would be educated. Double the number of students, and the expense reaches two millions. Provide for the 20,000 said to be now wishing collegiate opportunities, but unable to obtain them, and the State would be called upon to assume an annual burden of five million dollars, — an amount equal to the whole State tax for 1908, which was so much in excess of all previous burdens as to provoke universal criticism.

STATE SCHOLARSHIPS.

Without undertaking the task of establishing new institutions, the State might increase the number of free scholarships, and thereby widen the range of its beneficence.

Forty scholarships are now annually supported by the State in each of the two technological schools, — the Massachusetts Institute of Technology and the Worcester Polytechnic Institute. The number of applicants for these is greatly in excess of the number available, so much so that the practice has been adopted of giving half scholarships, thus nearly doubling the number of beneficiaries.

In 1908 there were awarded at the Massachusetts Institute of Technology six whole and sixty-eight half scholarships; at the Worcester Polytechnic Institute, seven whole and sixty-six half scholarships.

From all the applicants those are selected whose scholarship is high and whose pecuniary need seems to be greatest.

It is doubtful if any of the applicants who failed to secure the State aid were kept out of the schools by reason of this

failure. They found some other way of raising the money for their tuition. That this involved some hardship there is little doubt. The boys probably have undertaken to earn the money as they go along, or they have borrowed it with the idea of paying it from post-graduate earnings, or their parents are taxing their resources more severely. That the number of scholarships might wisely be increased is probably true, but there seems no good reason why such scholarships should be confined to the two institutes. Equally worthy and equally needy students are found in the textile schools and in all the colleges.

COLLEGE AID.

In the discussion of this subject the fact seems to have been overlooked that already a large number of needy young men and women are being aided in their efforts to obtain an education through beneficiary agencies in the colleges themselves. In fact, such large amounts of money are annually used in student aid that the assertion is frequently heard that no worthy person need go without college advantages because of poverty.

The authorities of Wellesley College say:—

It has been the case for many years, perhaps, throughout the history of the college that no well-qualified student from towns in the immediate neighborhood of Wellesley has been forced to abandon the college course on account of lack of means.

The president of Boston College writes substantially to the same effect.

To inquiries regarding beneficiary funds, the authorities of the Massachusetts colleges have responded with the utmost courtesy, and their replies are summarized in the following table:—

College funds for beneficiary purposes.

NAME OF COLLEGE.	Total funds.	Annual distribution, 1906-07.	Number of students aided.
Amherst,	\$300,000	\$14,500	150
Boston, ¹	—	—	60
Boston University,	—	9,800	116
Clark, ¹	—	1,000	—
Harvard College,	—	128,319	568
Holy Cross, ²	—	—	—
Mt. Holyoke,	140,000	6,600	85
Radcliffe,	115,000	4,750	22
Simmons,	7,063	4,295 ³	52
Smith,	52,000	9,000 to 10,000 ³	180
Tufts,	171,074	12,886	172
Wellesley,	—	11,525 ⁴	43
Williams,	194,447	10,000	70
Massachusetts Institute of Technology,	715,450	26,887	189
Worcester Polytechnic Institute,	—	4,800	32

¹ No special beneficiary funds but students aided from general funds.

² No special fund, but much aid given to poor students and a few special scholarships.

³ Larger part appropriated from general income of the college.

⁴ Scholarship fund. In addition, about 70 students are aided to the amount of \$100 each through a lower rate for board in the college cottages.

These figures, substantial as they are, indicate only in part the relief afforded to needy students. There are in all the colleges loan funds from which students borrow on easy terms. There are academic prizes in several of the colleges by means of which many students add to their income, and within reach of most college authorities are private sources which may be drawn upon in cases of special need. There are no means of knowing how many students are partially self-supporting through their college course, but the number is large, and most colleges undertake to find means of employment.

There is abundant evidence that the Massachusetts colleges, though not supported by public funds nor controlled by public authority, are not ministering to an exclusive class. Holding in trust great funds devoted to academic purposes by generous men and women of past generations, they are administering

the trust in no narrow spirit, but with the purpose of giving the largest opportunities possible to the largest number of persons possible.

MEDICAL INSPECTION.

The law requiring school committees or boards of health to appoint school physicians was amended during the legislative session of 1908 by repealing the section which limited the expenditures to a specific appropriation for the purpose. This leaves the law mandatory upon all school committees in towns and upon all school committees in cities where the work has not been taken up by boards of health.

Reports received show that in 294 of the 321 towns and in 32 of the 33 cities school physicians have been appointed and are now at work.

In one or two towns it appears that the inspection is under the direction of the board of health. This is not in accordance with the law. Boards of health are authorized to appoint school physicians only in cities.

In a majority of cases the physicians report in writing to the committees, and their reports are printed in the annual school reports. This should be required in all cases.

The reports now in print are most gratifying. With great unanimity they show that the physicians have accepted their appointment in the highest professional spirit; that they have entered on the new work with interest; that they have interpreted the law broadly; that they have dealt with delicate situations with tact and wisdom, thereby winning the confidence of parents and teachers; and finally, that the service which they have rendered is in most cases far in excess of their pecuniary compensation.

The following statement, from the report of the superintendent of schools of Northampton, is typical of many:—

Medical inspection in the Northampton schools is an unqualified success. This is largely due to the energy, tact and practical experience in school matters of our school physician, Dr. J. G. Hanson, supplemented by the cordial co-operation of parents and teachers, and, most important of all, the professional support given him by the physicians, dentists and oculists practising in this city.

A part of the work, which was less prominent in the minds of those who framed the law, may yet prove to be of prime importance. This is the inspection of school buildings and premises. In many of the reports the inspection is shown to have been thorough, and the conditions as to light, heat, ventilation and sanitation are described in unmistakable terms. Improvements which neither teachers nor superintendents nor State agents have been able to secure may yet be brought about through the fearless exposures by the school doctors.

The possibilities in this direction are shown in the Amesbury report: —

By virtue of a law passed by our Legislature of 1906, a new office in the management of our schools was created. Several conditions, which had existed some time, confronted your inspector, and needed immediate attention. The work of the year has been looked after thoroughly. We will be excused of any egotism if we say the results have been exceedingly gratifying. Of course only a beginning could be accomplished where there is so much work to do.

The first and foremost thing to do was to remedy the condition of things at the Bartlett school. Here was a menace, in the minds of the parents, and the school committee was at a standstill as to what to do. When the superintendent wanted to transfer pupils from one school to another, he had to respect the arguments against the bad health conditions at the Bartlett.

Diphtheria had made its appearance there so often (ten or twelve cases) that many sessions of school were lost, the full attendance lessened and the school efficiency materially interrupted. The drainage from the sink was found to be bad, — absolutely no idea of health in its construction. A cesspool was sunk, plumbing established in accordance with the regulations of the board of health, house cleaned, fumigated, and then a liberal coat of oil applied to all the floors. There have been no contagious cases from that school since.

For years (always, for that matter) contagious diseases have occasionally broken out in some of the schools, so that the board of health had to destroy many dollars' worth of books and other school property, discontinue the school sessions, clean, wash and fumigate, all of which entailed many dollars of expense to the tax payer. During this year not a single case of contagious disease has made its appearance, not a cent's worth of property has been destroyed, not a session of school has been omitted, and the board of health are strangers to us.

The reports also show that an increasing number of children are cared for by the parents in accordance with the notification

cards sent from the school. Yet parental neglect still stands in the way of securing the hoped-for results. Where school nurses are employed, the children are cared for more quickly and better, and the loss of school time is reduced to a minimum. All signs point to the fact that the school nurse will ultimately be considered an essential factor in the school system of all cities and large towns.

EYE AND EAR TESTS.

The second annual tests of sight and hearing of school pupils have been made by the teachers, and the results included in the school returns. Only one town, Nantucket, reports that the examination was not made. The results are as follows:—

Eye and ear tests.

COUNTIES.	NUMBER OF PUPILS EXAMINED.		DEFECTIVE EYES.		DEFECTIVE EARS.	
	1907.	1908.	1907.	1908.	1907.	1908.
Barnstable,	4,562	4,529	770	539	276	143
Berkshire,	14,343	14,653	2,614	2,470	786	593
Bristol,	38,210	37,957	7,683	6,700	2,450	1,802
Dukes,	678	752	162	162	32	43
Essex,	54,088	53,252	11,984	9,308	3,240	2,326
Franklin,	6,546	6,925	1,343	1,077	520	397
Hampden,	26,749	27,458	5,275	4,761	1,749	1,750
Hampshire,	8,807	8,650	1,626	1,510	535	407
Middlesex,	92,688	93,567	19,975	16,839	5,495	3,902
Nantucket,	—	—	—	—	—	—
Norfolk,	26,525	27,800	4,498	4,342	1,465	1,254
Plymouth,	20,818	21,165 ¹	3,295	2,934 ¹	911	819 ¹
Suffolk,	93,920	92,463	28,853	21,950	7,324	6,805
Worcester,	44,530	48,264	8,529	8,566	2,604	2,360
State,	432,464	437,435	96,607	81,158	27,387	22,601

¹ Exclusive of Hanson.

While the number of children examined in 1908 is slightly larger than the number in 1907, the number found defective appears to be decidedly smaller. In 1907, 22.3 per cent. of those examined were found to be defective in vision and 6.3

per cent. in hearing. The number reported in 1908 as defective in vision is 18.5 per cent. and in hearing 5.1 per cent.

It is impossible at present to account for this apparent reduction. Whether it is due to more careful testing, or to a different basis for reporting, or to counting children wearing glasses as normal, no one can tell; but it is interesting to note that there appears to be a reduction in every county. The figures for another year may throw some light upon the subject.

DISCLOSURES BY SCHOOL INSPECTION.

The number of children suffering from some physical ailment is shown to be much greater than any one had supposed. This is true of the country towns as well as of the cities. In a small country school were found an epileptic child, one with serious spinal curvature and one with quite pronounced chorea. A school physician, who has inspected 330 children in two country towns, reports: —

Of these, 217, or 65 per cent., had decayed teeth; 65, or nearly 20 per cent., had adenoids and chronically enlarged tonsils; 9 had decided eczema; 5 had valvular lesions of the heart; 7 had head lice; and 1 had spinal curvature.

In view of these facts, the statement frequently made as an excuse for non-action on the part of school committees, "Our children are all healthy," is evidently founded on ignorance.

In the cities the number of children affected and the variety of ailments is large. In Worcester the school inspectors found the following: —

DISEASES.	Cases.
Specific infectious diseases,	269
Diseases of the oral and respiratory tract,	1,974
Diseases of the ear,	75
Diseases of the eye,	223
Diseases of the skin,	2,109
Miscellaneous diseases,	1,402

In Boston the inspectors found: —

DISEASES.	Cases.
Specific infectious diseases,	408
Diseases of the oral and respiratory tract,	1,932
Diseases of the ear,	213
Diseases of the eye,	1,067
Diseases of the skin,	4,497
Miscellaneous diseases,	1,368

I have used these two cities as types. No one would be willing to vouch for these figures as showing the exact physical condition of all the school children in these cities. The inspections vary in their thoroughness, the physicians vary in their diagnoses, and the categories used in classification are not exactly alike in their content. But what the figures do show is, that a large number of children are in school who were not at the time of inspection *well*.

LIMITATIONS ON SCHOOL WORK.

There is always in the public mind a feeling of dissatisfaction with the results of educational work. Such feeling finds voice in private circles, on public platforms and in periodical literature. The voices are more numerous and more strident at some periods than at others, but the feeling always exists and has always existed, and lies at the foundation of all educational reform. The dissatisfaction has not been without justification. The schools have not secured all the results desired. The money expended has not brought the return which the public had a right to expect. These facts cannot be concealed nor truthfully denied.

In looking for the cause or causes of the inadequate returns yielded by the schools, most of the speakers and writers have gone far astray. They have almost without exception confined their view to the schools as institutions, — that is, to the admin-

istration, to the teaching, or to the curriculum. Never has one of them taken account of the fundamental factor in the problem, — the children themselves. The assumption in all these discussions has been that children, being children, are equally susceptible to education; that they will “take” learning as they take diseases peculiar to children, if they are properly “exposed” to it.

Medical inspection has given a rude jolt to this assumption. It has shown that in the cases of large numbers of children there is no reasonable ground for expectation that they will come out of the schools scholars. In the cases of many we have no right to expect to develop a high degree of intelligence. One physician’s report says, “I found fourteen children who were mentally deficient,” that is, too weak minded to profit by school instruction. But of children of normal mental powers the number of children suffering from physical ailments is large enough to lower the standard of attainment of the whole school population. Take, for example, some of the cases classed under miscellaneous diseases.

According to the Boston report for 1906, the inspectors found 208 cases which they called anæmia. If there had been so many cases of diphtheria, everybody would have been alarmed, — teachers, parents, doctors and the public. But only anæmia, — merely pallor and weakness and languor, — and, perhaps, some functional disturbance, no one makes much account of these, and the school machinery grinds on.

If the study of physiology has taught anything, it is that for all mental activity one thing is essential, — an adequate supply of good red blood. Fancy an anæmic girl sitting down at night to a difficult lesson in arithmetic or geometry or Latin, trying to concentrate her thought, summoning powers which cannot respond to her call. Her inevitable failure is not a failure in the teaching, or in the curriculum, or in the disposition of the girl; it is simply a failure to coerce nature to a reversal of her laws.

What is true of anæmic pupils is equally true of hundreds reported as suffering from neuralgia. There is no possibility of successful and continuous intellectual effort.

In view of what medical inspection has already shown, we have a right to insist that when the results of school work are

measured, men should judge righteous judgment. There is much popular clamor for "the essentials" in public schools. Modern business has become so highly systematized and specialized that the business man expects every employee to work with the promptness and unerring accuracy of a standardized machine; anything less than this causes annoyance.

If the schools could receive from the homes children sound in body and clean in personal habits, these children would go out able to read and write and spell and cipher to everybody's satisfaction, without leaving out anything from the present curriculum.

The essential which is lacking is a *condition of body* which makes concentrated and sustained mental effort not only a possibility, but a delight. As this condition is approximated, the schools will have approximate success.

The whole situation is aggravated by the facts which a recent investigation in New York has shown, — that the physical defects are most numerous in the earlier years of school life. Children outgrow many of their troubles. While there is some comfort in knowing this, school people will at once see that the period when defects are most numerous is the period when in the lower grades most of the mechanical work is done, which is the foundation for all subsequent study. This is the time when children are learning to read and to write and to spell and to handle numbers, — the time when habits of accuracy are formed, if formed at all. It is the time for drill.

The facts shown in the chapter on "Retardation and Physical Defects," in the book, "Medical Inspection of Schools," prepared by Dr. Luther Hasley Gulick and Mr. Leonard P. Ayres, and published by the New York Charities Publication Committee, are most significant.

THE TEETH.

Examinations of the teeth of school children in different places throw light upon the primary cause of many of the disabilities under which children suffer.

A paper read by Dr. C. Edward Wallis at the London Congress of School Hygiene in 1907, and published in the second volume of the proceedings, contains a table showing the results of an examination of 245 children between the ages of seven and

twelve in an elementary school in one of the poorer districts of London:—

Totals.

Number examined,	245 children.
Number of decayed temporary teeth,	952 = average per child, 3.9.
Number of decayed permanent teeth,	685 = average per child, 2.8.
Alveolar abscesses and fistulæ discharging pus,	23 = 9.3 per cent.
Chronic pharyngitis,	40 = 16.3 per cent.
Chronic enlargement of tonsils,	71 = 29.0 per cent.
Chronic submaxillary lymphadenitis (enlarged glands under the jaw),	150 = 62.2 per cent.
Enlarged glands in neck,	16 = 6.5 per cent.
"Mouth-breathers,"	6 = 2.4 per cent.
Anæmia (22 boys, 66 girls),	88 = 37 per cent. (13.4 boys, 81.4 girls).

Strasburg was the first city in the world to maintain a municipal school dentistry. Dr. Jessen, in a paper read at the London Congress, reports of this work:—

In no part of the public medical service have such results been obtained with such small expense. The experience of the Strasburg and other experiments has proved beyond doubt that the health of the children has been greatly raised by dental treatment. The care of the teeth has guarded against infectious diseases, and been a most valuable factor in the struggle against the spread of tuberculosis. . . .

The report of the government inspector laid stress on the following facts:—

School absences caused by toothache had greatly diminished.

The work of children hitherto suffering from their teeth had greatly improved.

The general health of children who occasionally suffered from toothache had greatly improved, as a consequence of dental treatment.

Very little school time had been lost by children attending school dentistry, as they went out of school hours. . . .

The children took the greatest interest in the instruction given to them about the care of their teeth.

The children like to be treated by the dentist, and no objections whatever had been experienced on the part of the parents.

Dr. Jessen made this statement: "In Germany at the present moment at least 90 per cent. of all elementary school children suffer from decayed teeth."

That conditions are not much, if any, better in Massachusetts, seems probable, judging from some reports recently made.

The school physician of Ashby reports that 95 per cent. of school children have decayed teeth.

The school physician of Northampton reports as follows:—

The most deplorable fact elicited from the examination was the almost total lack of care given children's teeth. Out of 600 children whose teeth were examined, only 74 had received any attention, and the larger number of the 526 exhibited most uncleanly and unhealthy mouths.

Dr. Willard C. Crocker, medical inspector of the schools of Foxborough, gives in his report a table of the results of inspection in all the schools of that town:—

SCHOOL	Number examined.	Teeth needing to be filled.	Teeth to be extracted.
High,	69	268	141
Grade IX.,	43	147	26
Grade VIII.,	48	166	25
Grade VII.,	51	162	31
Grade VI.,	31	81	11
Grade V.,	36	103	45
Grade IV.,	36	47	20
Grade III.,	39	71	8
Grade II.,	31	38	—
Grade I.,	40	8	3
Cary school,	30	38	6
Quaker Hill school,	24	33	2
Everett school,	14	26	1
Plimpton school,	18	31	—
Pratt school,	26	48	5
Paine school,	36	36	10
Totals,	572	1,303	334

A striking feature of this exhibit is the condition of the teeth of the pupils in the high school. There is no reason to think that the condition is worse in this town than in others.

It would be easy to satirize a condition which keeps boys and girls in high school at work five hours a day for four years on Latin and French and algebra and chemistry and a dozen other subjects, and leaves them ignorant of the elementary principles of health and without habits of personal cleanliness.

That faithful inspection and frank reporting of the results will bring relief is evident from Dr. Crocker's report: —

Though the examination and report sent to each parent showed the defects of the milk teeth, the above summary refers only to the adult teeth, and *does not include teeth already filled or missing*. . . .

All agree on the necessity of checking the decay that is started; and we are pleased to announce that the dentists of Foxborough have united in granting a discount of 25 per cent. from the regular prices upon all work for the school children as outlined in this examination, and that in some cases a special discount may be arranged on recommendation of the medical inspector.

It looks as if through dental inspection we were getting nearer the root of many of our school difficulties. For this reason the propaganda started by the Massachusetts Dental Council is most welcome. The travelling exhibit which has been prepared and the popular lectures which accompany it are proving effective means of arousing public interest.

TUBERCULOSIS.

The Legislature of 1908 (chapter 181) added "tuberculosis and its prevention" to the legal requirements for school instruction, so that the law now reads: —

.
In each of the subjects of physiology and hygiene, special instruction as to the effects of alcoholic drinks and of stimulants and narcotics on the human system, and *as to tuberculosis and its prevention*, shall be taught as a regular branch of study to all pupils in all schools which are supported wholly or partly by public money, except schools which are maintained solely for instruction in particular branches. . . .

In order that the teachers might have some authoritative guide in carrying out the provisions of the law, the secretary of the

Board of Education through the courtesy of Dr. Robert W. Lovett of Boston was able to confer with several prominent specialists in pulmonary diseases, who agreed to prepare a simple booklet of suggestions to teachers. This was done, and copies have been furnished to all the teachers of the State. The contents are as follows:—

SUGGESTIONS TO TEACHERS REGARDING TUBERCULOSIS AND ITS PREVENTION.

The suggestions to teachers contained in this booklet have been prepared for the Board of Education, as a matter of public service, by the following eminent specialists of Boston:—

ARTHUR T. CABOT, M.D., Chairman Massachusetts Commission on Hospitals for Consumptives.

HERBERT C. CLAPP, M.D., Professor of Pulmonary Diseases, Boston University School of Medicine.

EDWARD O. OTIS, M.D., Professor of Pulmonary Diseases, Tufts College Medical School.

HORACE D. ARNOLD, M.D., Professor of Clinical Medicine, Tufts College Medical School.

CLEVELAND FLOYD, M.D., Director, Out-patient Clinic, Boston Consumptives' Hospital.

JOHN B. HAWES, 2d, M.D., Secretary Massachusetts Commission on Hospitals for Consumptives.

GEORGE H. MARTIN,
Secretary.

Introduction.

Chapter 181 of the Acts of the Commonwealth of Massachusetts of 1908 provides that tuberculosis and its prevention shall be taught in all grades of the public schools of this State in which instruction is given in the subjects of physiology and hygiene. This pamphlet is not intended as a text-book for teachers of this subject, but is merely to suggest certain lines of instruction and to emphasize certain points to be dwelt on with particular emphasis. At the end of this pamphlet will be found references to various standard works on this subject, some of which will be within the reach of every school teacher, or which can be secured at a nominal price.

It is manifest that the methods of teaching and the subjects which are taught must vary a great deal, according to the age of the pupils. Among the primary grades, for instance, it should be made clear in the first place what consumption is, and why it is necessary to know something about it; and then particular emphasis should be given to the question of home hygiene, fresh air, open windows at night, bathing, care of the teeth, proper clothing, proper food, the avoidance of tea, coffee and tobacco, etc. Pupils in the grammar schools should be taught

more than this, — they should be given some idea as to what this disease is doing in our midst, what causes it, and the methods which are being taken to combat it. In the high schools and normal schools instruction should go still further, and it is possible that the teachers or head masters can make arrangements with the school physicians, or with physicians of local anti-tuberculosis associations, to give a series of short talks on this subject. Students of this age should not be allowed to finish their training without having a very clear idea in regard to consumption, its cause, the methods of prevention and cure, the present campaign against it, the methods of treatment in the sanatorium and especially in the home, and, most important of all, the early signs and symptoms of this disease, as well as a thorough knowledge of the ordinary laws of health and hygiene. It would be well if every such pupil was required to read Dr. Knopf's excellent essay, entitled "Tuberculosis as a Disease of the Masses, and how to combat it," which can be bought for 25 cents, or which can be secured in the local library.

Every teacher should realize her opportunity in thus directing her pupils in the way of wholesome living. A healthy mind requires a healthy body. The interest of the scholars will be aroused in this matter only in so far as the instructor stimulates or develops this interest.

Outline.

I.

What tuberculosis is. What consumption is. What the tubercle bacillus is. When discovered, and by whom. Methods of growth. Things favorable to its growth. Things unfavorable to its growth.

II.

Outline of history of tuberculosis: (1) ancient times; (2) dark ages; (3) present.

III.

What tuberculosis does: (a) in the world; (b) in this country; (c) age at which it kills; (d) compared with other great disasters, — yellow fever, Slocum disaster, San Francisco fire, Civil War.

IV.

How tuberculosis is spread. Sputum; milk; anti-spitting laws.

V.

Tuberculosis is preventable; it is curable; it is not hereditary. How prevented: (a) by living so as to keep health, — fresh air, — exercise, — food, etc.; (b) non-spitting.

VI.

How cured, — sanatoria. Home treatment. Methods of getting fresh air. A cure possible in any climate. A tendency and not the disease is hereditary.

VII.

Early signs and symptoms of consumption. Importance of other things besides a cough, — pallor, anæmia, loss of weight, weakness, listlessness, uncleanliness, glands, etc.

VIII.

The campaign against consumption in Massachusetts. Every one must do his share. Tuberculosis exhibits, societies, hospitals, etc.

IX.

Reference to standard works on the subject.

Tuberculosis and its Prevention.

I.

Tuberculosis is a disease caused by a very small germ or microbe called the tubercle bacillus. This is so small that it takes three thousand put end to end to measure one inch. This germ does not readily grow outside of living bodies, but when it gains entrance into the body it grows and multiplies, and finally destroys the tissues, and thus causes the disease tuberculosis.

Consumption is tuberculosis of the lungs, otherwise known as pulmonary tuberculosis, pulmonary consumption, or phthisis. Tuberculosis of other parts of the body is known by different names, such as humpback, or Pott's disease, which is tuberculosis of the spine; hip disease, tuberculosis of the hip; white swelling of the knee or of the ankle, which is tuberculosis of the knee or of the ankle; scrofula, which so many children have, characterized by lumps in the neck caused by enlarged glands, which is nothing but tuberculosis of these glands; lupus, a skin disease, tuberculosis of the skin. So it is possible for this tiny germ to cause tuberculosis or tuberculous disease of any part of the human body.

Although this germ cannot grow outside of the body, yet it will survive and keep its vitality for a considerable time after it is cast out. Darkness and damp favor its survival. Dryness, fresh air and sunlight tend to destroy it. Direct sunlight will kill any germ of tuberculosis in twenty minutes.

The organism which causes this disease was discovered by a famous German physician, Dr. Robert Koch, in 1882. Up to that time nobody knew what was the cause of this terrible affliction.

II.

Tuberculosis is a very old disease. Indeed, in the old Egyptian mummies evidences of tuberculosis have been discovered; and the famous writers of the old days, whose writings are still in existence, described this strange condition, in which their patients developed a cough and gradually wasted away. The disease was known then, as it is now,

as the "Great White Plague." There was not much which they could do for it. A few of the wiser doctors advised their patients to go to the mountains or to take a sea trip, although they could not explain why this should be beneficial.

Later, in that period in the history of Europe known as the dark ages, — the tenth, eleventh and twelfth centuries, — even the little knowledge which men possessed about tuberculosis was forgotten, and the disease swept through Europe, destroying people by thousands and sometimes wiping out whole families. Those suffering from this disease were shunned and avoided as if they were lepers, and were confined in rooms with the windows and doors closed, shutting out fresh air and sunlight, — things which we now know are so important in curing the disease.

In the first half of the nineteenth century people began to realize that consumption was curable. In Germany they began to build hospitals or sanatoria for consumption, where those suffering from this disease could be sent and undergo the out-door treatment, remaining in the fresh air all the time, eating proper food, and thus have their disease cured. This plan of the open-air treatment has spread over the entire world. Now a person with consumption is no longer given up as hopeless, but in the various hospitals and sanatoria which are scattered all over our country, and especially in Massachusetts, — the leader in this movement, — as well as in the homes of the people, consumption is being cured.

III.

While consumption, then, is curable, it is still a very prevalent disease and is causing incalculable suffering and loss, chiefly because it is greatly neglected. It has been found that of all people who die every year, about one-seventh die from consumption. When we consider the terrible carnage in the destructive battles in the eighteenth century we are rightly shocked, and yet during that same period nearly twice as many died from tuberculosis. In this century, during the four years of the civil war there were killed some one hundred and fifty thousand men, which causes one to realize the terrible nature of war; and yet every year in the United States there are more than one hundred and fifty thousand people destroyed by this one preventable disease, — consumption. The combined sum of all those who die of typhoid fever, appendicitis, scarlet fever, measles, diphtheria and cancer does not begin to equal the number that die from consumption alone. Such comparisons as these bring us to a realizing sense of the part played by consumption in producing misery and suffering in the world.

Most important of all is the fact that this disease attacks people when they are in the prime of their life, and when their services are worth most to their families and to the community in which they live; for the mortality from consumption is the greatest during the most active period of life, — from fifteen to thirty-five or forty years. It spares

no one, neither the child, the youth or the adult, the weak or the strong. Compare this with the infectious diseases of childhood, such as diphtheria, scarlet fever, etc., which are most prevalent and fatal in the early years of life, and with cancer, which is rarely fatal before a person is fifty years old, when one has lived longer than the average length of human life.

During the past five or six years there have been certain great disasters which have aroused the sympathy of the entire country, and for which relief funds have been raised amounting to thousands of dollars: for instance, the yellow fever epidemic in Louisiana some years ago; the terrible Slocum disaster in New York harbor; and the San Francisco earthquake and fire. And yet, terrible as these events seemed at the time, when they are compared with what consumption is doing silently and quietly in our midst, their importance sinks into insignificance.

IV.

When the germ of consumption attacks any person, it gets into his lungs and there grows and multiplies. As the disease becomes active a cough develops, and the person afflicted raises a certain amount of sputum. In this sputum are an innumerable number of the tuberculosis germs, which, if they are inhaled by people run down or otherwise in a poor condition to resist disease, may cause the disease in them also. This sputum must be destroyed in every case. If all sputum from consumptives were destroyed, consumption would soon die out. The disease is spread by carelessness or ignorance on the part of the consumptives, who do not realize that every time they fail to destroy the sputum, or spit on the floor, or on the sidewalk, it will dry, be ground up into a powder, fly through the air as dust, and be inhaled by some person who is in a condition to receive the disease, and so cause the disease in him. It has been calculated that in the sputum of one consumptive in the course of twenty-four hours there may be more than twenty-four million of these germs.

It is for this reason that a law has been made forbidding spitting on sidewalks, in public buildings, in cars, etc. It is then most important that every one, young or old, should realize clearly the dangers of indiscriminate spitting, and one's duty in seeing that this disgusting habit is stopped. Tuberculosis may be spread in a small measure in other ways: by means of germs from tuberculous cattle, which find their way into milk or meat; but this factor is such a small one that it may properly be passed over with a very few words.

While we should realize that an untrained, ignorant and careless consumptive is a danger to the community, we should also remember and constantly teach that the trained consumptive who is careful about his sputum and cleanly in his habits ceases to be dangerous, and may live among us without jeopardizing the health of others. It is very important that this distinction should be made clear, and that every

effort should be made to eradicate the stigma which in present times often rests upon the consumptive, no matter how careful and well trained he is.

V.

Tuberculosis is not hereditary; it is the *tendency* which is inherited, but not the disease itself. In other words, consumptive parents may have children who are naturally of a poor constitution, with weak lungs, flat chests, and little or no power to resist infection. Children in such families should be brought up with the utmost care, and should be given the maximum amount of fresh air and sunlight. The training of their minds should be sacrificed, if need be, in order that their bodies may be developed to the highest possible standard of health. It is for such children as these that there have been founded in Germany the so-called "forest schools," where the children of tuberculous parents and all those children who are weak and run down and liable to contract this disease are sent. There they go to school practically out of doors, and are trained in the best habits of hygiene and proper living. Such a school as this has recently been opened in Providence, R. I., and others are planned for this State.

We should endeavor to teach children, first, that spitting is a dangerous as well as a disagreeable habit; and second, that the best way to avoid consumption is to so live that we are always in a healthy condition, so that we can resist the harmful action of any germs that may find their way into our lungs or stomachs. We should teach children the importance of fresh air, good food and cleanliness, and a proper amount of sleep.

In regard to fresh air: in far too many instances mothers have a positive dread of open windows and of draughts. It is, however, very important that rapidly growing children should have as much fresh air as possible. This should be taught in a practical way in the school-room itself, by using every possible means for good ventilation, by opening the windows wide during all recess intervals, and by interrupting hours of study by short intermissions during which the children are given breathing exercises with the windows wide open. The fact should be emphasized that night air is not dangerous. The fact that we are all spending one-third of our lives in sleep, and that during this one-third, which is the period used for building up the body and making good the losses sustained during the day's work, it is most important that the body should have fresh air in large amounts, should be taught. A large amount of sleep in the growing period is important. All this should be emphasized.

The question of proper food should be considered. The use of tea and coffee and other stimulants among children, especially of the poorer classes, is extremely common, and does a great deal of harm. The dangers of this should be taught.

The importance of bathing should be made clear. Children, and

through them their parents, should be made to see that the morning bath is not only for cleanliness, but also to stimulate the body and mind for the work of the day. Every child should be taught as soon as possible to take a sponge bath in a warm room every morning. The proper care of the teeth should be emphasized, and the dangers of neglecting to care for the teeth constantly impressed upon the children.

There should, whenever possible, be active co-operation between the teachers and medical inspectors; for the teacher, who sees the children constantly, can note the signs of failing health far more accurately in many cases than the physician, who sees the child only occasionally.

VI.

The treatment of consumption first of all is by so living that the body does not acquire the disease; therefore, the ideal method of treatment is by prevention. This, however, is not possible in every case, and there are unfortunately a great many people, as has been shown, who have this disease, for whom active measures in curing it or stopping its progress must be taken. Treatment is not by means of drugs or medicines. Especially one should avoid patent medicines and advertised cures of all kinds. Treatment consists in giving the patient fresh air day and night, proper food at the proper time, and rest. This is done either in the home or in institutions built for this purpose, called tuberculosis sanatoria. Massachusetts was the first State in this country to have a State sanatorium. The Massachusetts State Sanatorium is a large institution, which holds three hundred and fifty patients, situated in the center of the State, in Rutland. Here patients in the early stage of consumption, which is the curable stage, are taught how to live out of doors in comfort; how to sleep out of doors at night, or in open-air wards or rooms winter and summer; what food they must eat; the amount of exercise or rest they must take; and the precautions they must use in caring for their sputum, to avoid giving others this disease. Such sanatoria exist in most civilized countries to-day, and more are being established every year. The average length of stay is six months to a year. From sixty to seventy per cent. of those in the early stage of the disease leave the sanatorium at the end of this time apparently cured.

The fact should be emphasized that it is no longer considered necessary for a consumptive to go to a different climate or to some distant place in order to get cured of the disease, for, although certain climates are of value, consumption is being cured in New England every day.

It is important to remember, however, that but a small percentage of these consumptives are in a position financially or otherwise to go to a sanatorium for treatment. A great majority of sufferers from this disease must be taught how to live in their own homes; and at present the so-called home treatment of consumption is meeting with a great deal of attention.

Teachers of our public schools have a great opportunity to instruct the children with whom they come in contact, young and old, in the principles of this treatment; and it is important to always bear in mind that fresh air night and day, sunlight, cleanliness, bathing, plenty of plain, nourishing food, are the things on which the treatment of consumption is based; and, further than this, that these are the essential conditions in obtaining and preserving good health and in avoiding a great many other kinds of diseases. The actual details of the open-air treatment of consumption may well be left to the physician or nurse.

VII.

It is important that teachers should realize that the earliest sign of consumption is not necessarily the so-called hacking cough, hemorrhage from the lungs, or the presence of night sweats and fever. These frequently do not appear until comparatively late in the disease. The earliest signs, in children especially, are those of failing health, from whatever cause. In the first place, the teacher should be told or should find out what children in the class have consumption in their family, and should give special attention to these children. Loss of appetite, weakness, languor, listlessness, are among the early signs. Pallor, marked anæmia, loss of weight, excessive emaciation, the presence of enlarged glands in the neck, are indications that there is something wrong. If in addition to this there is a cough, with or without any sputum, the child should most certainly be examined by a physician.

VIII.

The campaign against tuberculosis in Massachusetts is along two lines; first, that which is being done by sanatoria and hospitals; second, that which is being done outside of these institutions by physicians, boards of health, anti-tuberculosis associations, etc., in teaching people how to live in their own homes.

At present Massachusetts has certain State institutions, such as the State Sanatorium at Rutland for early cases, the three hospitals for advanced cases which are being planned by the Massachusetts Commission on Hospitals for Consumptives, and numerous private institutions. In addition to this, and of still more importance, is the work which is being done by the medical profession throughout the State and by the various anti-tuberculosis associations, lay and medical, which have been formed in all of the large cities and in many of the smaller cities and towns of Massachusetts.

It is by these agencies that the prevention and control of tuberculosis is being accomplished. By means of tuberculosis clinics and district nurses we are finding out the innumerable cases of consumption in the homes, in the tenements and in the factories of our State. The early cases are urged to go to the State Sanatorium at Rutland; proper hospital accommodation is obtained for the advanced cases, or they are taught how to live in their own homes. The masses of the people

are educated by means of lectures, exhibits, cards and signs, etc.; boards of health are stimulated to take proper measures as regards disinfection; and physicians are persuaded to report their cases of consumption as they do their cases of scarlet fever. Most important of all, the general public is aroused to realize the importance of the subject.

One of the most efficient means of instructing the public, and school children as well, in regard to tuberculosis, is by means of the travelling tuberculosis exhibit which goes from city to city throughout the State. It is very important that when this exhibit appears arrangements should be made by which teachers and school children of all grades should attend, and receive definite instruction as to what the various charts, photographs, models, etc., mean. Such an exhibit will be found an object lesson of very great importance, and a means of emphasizing the points which have been given in previous instruction in the schools.

IX.

The following books, or most of them, can be found in the public libraries, in the travelling library of the Massachusetts Federation of Women's Clubs, or should be provided by the local anti-tuberculosis association, and some at least should be provided by the school committees for the use of the teachers. Further information can be obtained at any time by applying to the Massachusetts Commission on Hospitals for Consumptives, 3 Joy Street, Boston, or to the Boston Association for Relief and Control of Tuberculosis, 4 Joy Street, Boston. In almost every case local physicians can give additional information.

List of Books.

"Tuberculosis as a Disease of the Masses, and how to combat it," by Dr. S. A. Knopf. (This can be obtained from "Charities and the Commons," 105 East 22d Street, New York, at 25 cents a copy.)

"The Cause and Prevention of Consumption," a circular issued by the Illinois State Board of Health.

"Consumption and Civilization," by John B. Huber, a large book, going into very minute detail on this subject. (It can probably be found in the public libraries, and can be bought at any large book store.)

"The Prevention and Cure of Tuberculosis," a collection of articles of a popular character on the subject of tuberculosis, by the leading men in this subject in this country; compiled by Joseph R. Long; published by H. M. Brinker, Denver. This is an excellent series of essays, covering the whole ground very completely, and can be secured of any bookseller.

Pamphlet of information on the subject of tuberculosis, issued by the Boston Association for Relief and Control of Tuberculosis, which can be obtained on application at the office of the Association at a nominal price.

Several school text-books on physiology and hygiene contain valuable chapters on tuberculosis. Information concerning these may be obtained from the publishers.

PRINTED RULES OF HEALTH.

The following rules of health have been prepared by the Educational Department of New Jersey, and furnished to all the schools: —

HOW TO KEEP WELL AND PREVENT CONSUMPTION.

Air.

Fresh air and sunshine are necessary to good health.
Cold or damp fresh air does no harm if the skin is kept warm.
Night air is as good as day air.
Breathe only through your nose.
Avoid hot, crowded, dusty, dark or damp rooms.
Breathe deeply and throw back the shoulders frequently.

Food.

Live on plain food, and eat regularly.
Eat slowly, chew thoroughly, and avoid fried food.
Drink water freely (not iced).
Have your own cup if drinking fountains are not provided at school.

Exercise and Rest.

Regular exercise is essential to good health.
Go to bed early, and sleep with the windows open.
Never sleep in a damp bed.

Clothing.

Wear only loose clothes.
Wear no more clothing than you need for warmth.
Never sit with wet feet or in damp clothing.

Cleanliness.

Consumption and other diseases are spread by careless spitting.
Spittle on the floors of rooms, halls, stores and cars will certainly be breathed in the form of dust.
Keep clean. Wipe and dry the body quickly every day.
Keep your finger nails clean, and wash your hands and face before you eat.
Clean your teeth after each meal and before going to bed.
Never hold money, pencils, pins or other things in your mouth.
Never lick your fingers while turning the pages of a book or counting money.

All children should observe the preceding rules, both for their own sake and for the sake of others. They are necessary safeguards against

other dangerous diseases besides consumption. Nearly all children's diseases are infectious.

The foregoing rules have been approved by the State Board of Health and the State Board of Education.

Teachers are requested to make them as effective as possible.

C. J. BAXTER, *State Superintendent.*

TRENTON, N. J.

More specific than these are the rules prepared by Dr. S. A. Knopf of New York City, entitled "Simple Rules for School Children to prevent Tuberculosis."

Do not spit except in a spittoon, a piece of cloth or a handkerchief used for that purpose alone. On your return home have the cloth burned by your mother, or the handkerchief put in water until ready for the wash.

Never spit on a slate, floor, playground or sidewalk.

Do not put your fingers into your mouth.

Do not pick your nose or wipe it on your hand or sleeve.

Do not wet your fingers in your mouth when turning the leaves of books.

Do not put pencils in your mouth or wet them with your lips.

Do not hold money in your mouth.

Do not put pins in your mouth.

Do not put anything in your mouth except food and drink.

Do not swap apple cores, candy, chewing gum, half-eaten food, whistles, bean blowers, or anything that is put in the mouth.

Peel or wash your fruit before eating it.

Never sneeze or cough in a person's face. Turn your face to one side or hold a handkerchief before your mouth.

Keep your face, hands and finger nails clean. Wash your hands with soap and water before each meal.

When you don't feel well, have cut yourself, or have been hurt by others, do not be afraid to report to the teacher.

Keep yourself just as clean at home as you do at school.

Clean your teeth with tooth-brush and water, if possible, after each meal; but at least on getting up in the morning and on going to bed at night.

Do not kiss any one on the mouth or allow anybody to do so to you.

Learn to love fresh air, and learn to breathe deeply and do it often.

OUT-DOOR CLASS IN BOSTON.

The following account of an effort to provide healthful conditions for school children exhibiting signs of incipient tuberculosis has been furnished by Mr. Walter E. Kruesi, secretary

of the Boston Association for the Relief and Control of Tuberculosis: —

Examination of the families of persons applying at the Tuberculosis Clinics in Boston was started at the instance of the Boston Association for the Relief and Control of Tuberculosis in January, 1907. The first 1,200 children examined revealed 100 cases of tuberculosis, mostly incipient. These children were attending the regular public schools. As the incipient cases are not contagious, they were not a source of danger to their schoolmates, but their school records show that they were too unwell to absorb the education which was provided. This, therefore, represented a waste of thousands of dollars per year. Furthermore, the average school ventilation conditions and the pressure of the school work was distinctly detrimental to them. There was absolutely no institution or other provision for such children in this State. Turning to find out what others were doing, the Boston Association studied the forest schools provided for this class of cases by many of the German cities and the outdoor schools provided in England. In these schools the children admitted are sent every day to the open country nearest their homes, and are there provided with proper clothing and school benches set down in the open. During storms the benches are moved under a canopy roof. There is no further shelter. The children are properly fed during the day, and the curriculum is modified by the introduction of therapeutic exercises, rest periods and otherwise, as indicated by scientific study of the needs of the group. The association's secretary proposed last winter that a similar school should be organized in Boston. Finally on the 16th of July it was opened as a day sanatorium and school of outdoor life on the grounds of the proposed Robert Brigham Hospital, Parker Hill, Roxbury. This situation had been previously used to good effect for an adult day sanatorium. A simple building was built, containing two dressing rooms and lavatory with a large shower bath between, an open kitchen, pantry, and platform for a large tent to be used for a shelter in storms and as a dining room. Three 10 by 12 tents were provided for the cook, handy man and tools and supplies. A garden 3 by 7 feet was laid out for each team of two children. There were also three central flower gardens. In these were planted seven varieties of vegetables and ten varieties of flowers. Small plants were put in because of the lateness of the season, and in order to give the children an encouraging start.

The schedule of the day began with assembly and the raising of the national and health flags, then ablutions, breakfast, brushing of teeth. After an hour's work in the garden and an hour's class in study of the lessons of the need of living things for oxygen, good food, sunlight, elbow room, etc., they again became active in free play. Washing up for dinner quieted them, and after again brushing

the teeth, all were required to rest or sleep for an hour. The afternoon routine was similar. At the end of eight weeks all of the children had gained in weight, had made marvelous improvement in appearance and manners, while the tuberculosis of 8 had been definitely arrested. Every garden had succeeded in every crop. One child's family had moved out of the worst part of town to good quarters, while others had materially improved their surroundings.

Lest the great gain which had been made should be lost, the school board was requested to organize a special class, made up of these children and others admitted to take the place of the discharged. An especially fitted teacher was selected for the work, and is now conducting it in the unheated tent. To provide against the exposure, every child is given a waterproof canvas bag lined with blanket. Each child has also been provided with an especially warm overcoat and other necessary clothing. The teacher reports that the children are making satisfactory progress in keeping up with the work which they ought to do were they in the regular school. The city of Boston is making an effort to provide the school with a proper building for shelter during bad weather, and in order that the efforts already so well begun may be placed on a safe basis for continued development.

PLAYGROUNDS.

The playground movement is a part of the general effort to improve the conditions for the physical and mental growth of children, and it seems now to be the most popular part.

In 1908 the Legislature passed the following act, known as chapter 513, Acts of 1908:—

AN ACT TO PROVIDE FOR PUBLIC PLAYGROUNDS IN CERTAIN CITIES AND TOWNS.

SECTION 1. Every city and town in the commonwealth having a population of more than ten thousand, accepting the provisions of this act shall, after the first day of July in the year nineteen hundred and ten, provide and maintain at least one public playground conveniently located and of suitable size and equipment, for the recreation and physical education of the minors of such city or town, and at least one other playground for every additional twenty thousand of its population.

SECTION 2. Cities and towns may appoint, and determine the compensation of, a qualified supervisor of each playground, who shall direct the sports and exercises thereon.

SECTION 3. In cities and towns where the provisions of this act are not already satisfied, land for the purpose aforesaid may be taken, and the money necessary to pay for such land may be raised in accordance with sections nineteen, twenty and twenty-one of chapter twenty-eight

of the Revised Laws; and any land owned by the city or town may be set aside by vote of the city council, or of the board of selectmen, for the purposes of this act.

SECTION 4. In cities and towns which have a population of more than ten thousand, and which have not already satisfied the provisions of this act, the following question shall be placed on the official ballot at the next city or town election: — Shall chapter _____ of the acts of the year nineteen hundred and eight, requiring certain cities and towns to provide public playgrounds, be accepted by this (city or town)?

SECTION 5. This act shall take effect in any city or town to which it applies upon its acceptance by a majority of the voters voting as aforesaid.

Under the referendum provisions of this act it was subjected to popular vote at the December elections in 25 cities. The vote was as follows: —

	Yes.	No.		Yes.	No.
Beverly,	2,139	703	Melrose,	1,386	452
Brockton,	7,468	1,046	New Bedford,	7,107	1,187
Chicopee,	1,445	754	Newburyport,	1,746	770
Everett,	2,102	248	North Adams,	1,217	1,383
Fall River,	10,940	1,484	Northampton,	1,140	1,236
Fitchburg,	3,539	761	Pittsfield,	3,783	727
Gloucester,	2,489	920	Quincy,	3,002	933
Haverhill,	4,825	1,116	Salem,	5,129	606
Holyoke,	5,047	787	Springfield,	10,342	1,006
Lawrence,	7,533	1,406	Taunton,	4,181	910
Lowell,	10,283	2,424	Woburn,	1,994	437
Lynn,	11,122	1,083	Worcester,	13,626	4,557
Marlborough,	2,064	463			

These figures are mainly from newspapers, and subject to slight errors.

The acceptance of this act is only the beginning. There will be needed a campaign of education to secure under the law a sufficient number of grounds suitably located, adequately equipped and properly supervised.

The supervision should be by the school authorities or some other non-political organization.

SCHOOL INSTRUCTION IN HYGIENE.

While the public under the medical inspection law is doing so much for the schools, the question is a reasonable one, "What are the schools doing in return?" It were foolish to go on year after year hunting for troubles and always finding them, spending public and private money in curing defects, without undertaking to go deeper and strike at the roots.

We ought to be able to look forward to a reduction in the number of disabled children, and to the eradication of many if not of most of the diseases and defects.

The physical defects and disabilities from which the children are suffering are in the main due to ignorance of the laws of health. Parental neglect is not wilful.

The relation to health of personal cleanliness and household sanitation, of food and air and light and sleep, is very imperfectly understood.

Public education can have no worthier end than to promote public health. To do this effectively, the much-neglected and much-abused study of physiology and hygiene will have to be given a more prominent place in the curriculum of all schools. Even the three "R's" are not more essential.

To the prejudice created by the unwise efforts to confine all the school instruction in physiology to the effects of alcohol and tobacco is due much of the neglect. There is needed everywhere an increased amount of time for the study, more sympathetic and judicious instruction, and a more studied effort to bring the schools and the parents into co-operation for the forming of better habits by the children, and for more sanitary conditions in the homes. Such study and such effort will make the temperance instruction not less but more effective.

BUSINESS COURSES IN HIGH SCHOOLS.

The so-called commercial courses in the high schools have been established mainly during the last twenty years. In a report on high schools made to the Board of Education by one of its agents in 1885, the statement was made: "Twelve schools have provided what are called business courses covering but two years." Of these courses the agent said:—

This short course meets with little favor from pupils or teachers. I have found but one teacher who shows any decided interest in it. Fewer students choose it, and these, I have been told, are usually of the weaker sort. So far as the true end of high school instruction is concerned, I consider the course almost valueless.

Since this report was written business courses have increased greatly in number, and they have been strengthened in the length of time given to them, the severity of the requirements, the quality of the instruction, the appreciation and interest of the principal, and, in consequence, the character of the students pursuing them.

In his report on high schools, contained in the appendix to the sixty-ninth report of the Board of Education, Mr. J. W. MacDonald, agent, gave statistics showing the number of schools in which commercial branches were studied and the time given to each. He also discussed the relative value of these studies for the purposes of education.

In order to ascertain whether the business course in a public high school, which is avowedly a vocational course established to increase the wage-earning power of the students, can accomplish its purpose, and whether in doing so any interests of students must be sacrificed, I submitted to the principals of several high schools a few questions, to which they have kindly replied at considerable length. The facts contained in their letters not only furnish interesting testimony regarding the particular subject under discussion, but they also throw a strong light upon the more general problem of vocational training in the public schools.

The questions submitted were as follows:—

1. Do you think that the commercial course in your school has accomplished the ends sought in its establishment, namely, to increase the practical efficiency of the young persons who have pursued it?

2. By taking it have they sacrificed cultural training to such an extent as to make the net result loss in education rather than gain?

I should be glad to have as many specific illustrations of the influence and value of the course as you may be inclined to furnish.

The following are the replies received:—

LOWELL HIGH SCHOOL, LOWELL, MASS., Oct. 12, 1908.

DEAR MR. MARTIN:—In answer to your letter asking certain questions in regard to results in our commercial department, I beg leave to reply as follows:—

As to practical efficiency, our commercial department has been far more successful in training our pupils for immediate employment than I anticipated or prophesied at the time of its organization. Our boys get work at once. We cannot furnish boys with our complete commercial training (*i.e.*, those who have taken the four years' course) in sufficient numbers to meet the demands from Lowell business men. There is not so much demand for our girls, but they all get remunerative employment sooner or later.

The manager of a very large fire insurance office, who has employed high school graduates exclusively for many years, reports that since the introduction of our commercial instruction a great improvement in adaptability, efficiency and value to his office has been noticed. I have received similar reports from many business men.

A recent investigation shows wages to be from \$5 to \$8 a week at the start, with many getting \$12 to \$14 a week after one or two years' experience, while some of our earlier graduates are now earning much more. One of these graduates is now getting \$1,400 a year as a stenographer. This is, I think, the highest salary received by any of our graduates.

The introduction of the commercial course has increased our attendance. The entering class in this department numbers about 150 this year. An investigation elicits the fact that from 20 to 25 per cent. of these pupils would not have attended the high school but for the commercial course.

Has cultural effect been sacrificed? I do not believe the cultural effect or the mental training in this course is equal to that of the college preparatory course. The training does, I think, compare favorably with that in the general course. It must be remembered, too, that these 150 students, who have no chance of going to college, cannot be forced into the college preparatory course.

Fifty per cent. of the studies in the commercial course as arranged are the ordinary conservative studies of the general high school course, such as English, history, modern languages, mathematics and science. I believe that all these pupils who stay with us four years have been given a good stiff high school training.

The addition of the commercial department to our high school has accomplished a distinct educational gain for the youth of our community.

Very truly yours,

CYRUS W. IRISH. *Principal.*

ENGLISH HIGH SCHOOL, LYNN, MASS., Oct. 8, 1908.

Mr. GEORGE H. MARTIN, *Secretary, State Board of Education, Boston, Mass.*

DEAR SIR:—Replying to your inquiry relative to the success of commercial courses in high schools, I would say that I *know* the commercial course in this school has greatly increased the practical efficiency of the young people who have pursued it. I am sure there are many other schools doing as good and no doubt better work than we are. During the past five years we have not been able to supply the demand that has come to us from the business and professional men of our own and neighboring cities for clerical assistants in various lines. In fact, during this time every graduate of the school who was willing to accept a position has been happily placed before the November following his graduation, and every year we could have placed a score more if we had had them.

You asked for specific instances, and among them I might mention that the present stenographer to the mayor is one of our graduates, as also the recently selected stenographer for the office of the school department. A boy was allowed to leave school the week before graduation to become stenographer for the second vice-president of the Boston & Maine Railroad. A boy in the class of 1907 went immediately into the office of the auditor of accounts in the Boston & Maine Railroad as stenographer. Several others have recently been placed in similar positions in various offices of the Boston & Maine Railroad. A young lady went immediately from graduation into the office of the Massachusetts Nautical Training School Commission, and was later employed in the office of the Harbor and Land Commission at the State House, until we took her into our own office as clerk and stenographer. Another graduate is teacher of typewriting in this school. A young man immediately after graduation became head bookkeeper for the — Shoe Manufacturing Company. A young lady became bookkeeper and stenographer at once after graduation for the — Dry Goods Company. Two went immediately from last year's class to positions as stenographers in the General Electric Company. . . . The most capable girl in charge of their office that the — Shoe Company ever had, according to their statement, was one of our graduates. The bookkeepers of the — Bank and the — Bank who went into these institutions as assistants are also graduates of our school. A young lady became bookkeeper for — & Co., plumbers, immediately after graduation. Another young man is now court stenographer in Los Angeles, Cal.

I might continue this list to fill many volumes, as our graduating class each year numbers from 90 to 125, and a little more than half of these are graduates of the commercial course.

In regard to the effect of the commercial course on the general education of those who elect that course, I would say that the course covers four years, and these pupils take, in common with all pupils of the school and in the same classes, the studies that usually constitute the foundation of a high school course, such as English language and literature, French, Spanish, German, science, history, algebra and civics, and in all of these subjects they maintain a thoroughly satisfactory standing, as compared with other pupils. For the past five years the commercial pupils have constituted 51 per cent. of our enrollment. Pupils averaging above 85 per cent. in scholarship for the entire course are classed by us as "honor graduates."

During these five years of which I have been making a special study, 58 per cent. of the honor graduates have been in the commercial course, which seems to me to answer your second question as far as this school is concerned, especially as during these years we have sent from 10 to 20 pupils to college every year. Two of our commercial graduates are now in Dartmouth, assisting themselves financially by use of their stenography. Another graduate of the course has just graduated from the Massachusetts Institute of Technology with a notably high standing. The school is on the College Entrance Certificate Board's list of approved high schools, and in our second term of approval. . . .

This reply is somewhat rambling, I am aware, because I am not wholly sure in what way I can best answer your question for the use you have in mind; but if there is anything more definite that you wish to know, I will gladly answer to the best of my ability.

Very truly yours,

C. S. JACKSON, *Principal*.

ENGLISH HIGH SCHOOL, WORCESTER, MASS., Oct. 5, 1908.

Mr. GEORGE H. MARTIN, *Secretary, State Board of Education, Boston, Mass.*

MY DEAR MR. MARTIN:—In answer to your note of September 22, in regard to commercial departments in high schools, I would say:—

I do think that the commercial course in this school has accomplished the ends sought in its establishment, namely, to increase the practical efficiency of the young persons who have pursued it; and by taking it they have not sacrificed cultural training to such an extent as to make the net result loss in education rather than gain.

A pupil who does the work of the commercial department in this school well is fitted to go to work along the lines implied in the name, i.e., in bookkeeping and stenography and typewriting. We have more calls for pupils to fill places than we can supply, especially in the case of boys. This last year is an exception, for good reasons.

Here are a few specific instances. A girl in the class of 1907

started at once in an office as stenographer and bookkeeper, salary \$8 a week, in three months raised to \$10. Three sisters graduating in different years went into the office of the — Store in this city, at salaries of \$8 to \$10 per week, soon increased to \$12. One of them is now getting \$15 per week in another office. A boy who graduated last June got a job as shipping-clerk at once, at \$10 per week. A boy who graduated about ten years ago was soon receiving \$3,000 a year as secretary and treasurer of a manufacturing company, — a place he attained by merit only. A girl who graduated here about five years ago was private secretary for President — of — University. Her physical strength was not equal to the work of that position. She is now private secretary of President — of the — Institute. She took the civil service examination at the State House last spring, I am told, and passed with an average of 95 per cent. in the most rapid tests. One of the local printing offices has two of our girls in its business office, and another has three; one of the insurance offices, three, the office of the insane asylum, three or four. Some of our graduates in the commercial department are teaching the same subjects here or elsewhere.

The above are some of the cases that have been mentioned to me by the teachers in this department; I could give you many more. A good many business men in this city want high school girls in preference to any other.

As you will see by a copy of our course of study, which I enclose, cultural studies are not neglected. Every pupil who graduates from this school must have taken English, four years, five recitations per week; algebra, one year, five recitations per week; plane geometry, one year, five recitations per week; physics, one year, five recitations per week, except in the art course, where botany or zoölogy may be substituted; and history, ancient, medieval, English, or United States, one year, as above. So you will see that half of the subjects required for graduation (sixteen points in all) are required. Of the other eight points, one is commercial arithmetic (three recitations per week) and commercial geography (two recitations per week), not begun until the second year, and two each in stenography and in bookkeeping during the third and fourth years. A pupil is not required to take both stenography and bookkeeping, but may take either or both, as he chooses. The remaining points are selected from other subjects in the course. The teachers of physics in the third year find that pupils who have had commercial arithmetic in the second year can generally do the arithmetical part of physics — the problems — more easily and correctly.

I think it may be true that in schools where pupils are allowed to begin stenography and bookkeeping in the first year of a three years' course, and can graduate without having had any algebra or geometry and little English, — and there are schools of that sort even in Mas-

sachusetts, I believe,—the complaint of inefficiency to which you refer is well grounded. One of my teachers says: "A commercial course makes it possible for the student to realize both the utilitarian and the cultural value of education."

Please do not hesitate to ask me for any further information along this line or any other. I shall be glad to be of any help to you.

Yours truly,

JOSEPH JACKSON, *Principal*.

BEVERLY HIGH SCHOOL, BEVERLY, MASS., Sept. 25, 1908.

Mr. GEORGE H. MARTIN, *Secretary, State Board of Education, Boston, Mass.*

MY DEAR MR. MARTIN:—I have yours of September 22. . . . The commercial course in our school has not only accomplished the ends sought in its establishment, but has proved even more efficient and successful than we could have hoped. Our commercial course has been so arranged and planned that students taking this course are required to do just as much and even in some cases more work than is required in other courses. There certainly has been no loss in educational training.

I enclose a report from Mr. Gaylord, head of our commercial department, on specific illustrations of the influence and value of our commercial training in the high school.

Very truly yours,

B. S. HURD, *Principal*.

BEVERLY, MASS., Sept. 24, 1908.

Mr. B. S. HURD, *Beverly, Mass.*

DEAR MR. HURD:—In answer to your request that I suggest some specific illustrations of the influence and value of the commercial course in the Beverly high school, as, in turn, requested by Mr. George H. Martin of the Massachusetts Board of Education, I submit the following:—

Miss ———, a graduate of the class of 1902, took most of our commercial course, and began work with ———, at \$6 per week. She was promoted from time to time, and in 1904 went to the ——— Company, at \$10 per week. Her last report to me, about one year ago, said that she was then receiving \$14 per week.

Miss ———, a member of the class of 1902, soon after graduating went to the ——— Life Insurance Company, where, when she last reported to me, she was receiving \$15 per week. Her sister, Miss ———, was placed during the summer following her graduation with the ——— Messenger Company, and when I heard from her last she was receiving \$12 per week.

Mr. ———, a member of the same class, went to the ——— Com-

pany about the middle of his last year in our course (owing to his very rapid progress), at \$10 per week. From there he was taken by the —, at \$12 per week, and then went as private secretary to the president of the Electric Heat, Light and Power Company at —, at \$15 per week. From this position he went to another with an electrical supply house, at the same salary, in order to get a variety of experience and an opportunity for promotion. After reaching the limit of salary here, he accepted his present position as office man and travelling salesman for the — Company. When he last reported to me, about one year ago, he was receiving \$1,000 per year and travelling expenses. He has also been in charge of the typewriting instruction in the evening sessions of the Central Y. M. C. A., —, for two or three years, and beginning next month he will be in charge of the shorthand and typewriting in that institution.

Mr. — —, a short time before commencement, in 1904, went to the — Company, with which company he has since been employed, first as bill clerk and assistant cashier in the Boston office, then as auditor in the Philadelphia office for one winter, and subsequently, until very recently, as auditor in the Charleston, S. C., office. He is now in the treasurer's office in Boston. The last time he reported to me he was receiving \$20 per week.

Miss — — began work with —, manufacturers, in —, at \$8 per week, but in about one year after leaving school she engaged with the — Mills, at \$15 per week. She is still there.

Mr. — — was employed in — for one year following his graduation, as stenographer for a large shoe manufacturing concern, at \$8 per week. At the end of the year his salary was increased to \$10, but I was able to bring to his attention, at the same salary, a position with the — Machinery Company of —. He took the position, and has been promoted since, until he is now in charge of the stenographic force; and when he reported to me about a year ago he was receiving \$16 per week.

Mr. — —, soon after graduation, engaged with the — Company of — as a clerk and bookkeeper, at \$8 per week, employing his evenings in writing advertising, the outgrowth of some special work in the commercial English class, thus increasing his income. He is now assistant cashier in the office in which he has been working, and receives \$18 per week.

Of the class of 1905, Miss — —, after working with various firms for about a year, took her present position in the — building, at a salary approximating \$12 per week. She has a very responsible position, and at certain seasons of the year is allowed to sell material for her employers in carload lots during their absence, using her judgment as a business man would do in handling the business that comes up.

Mr. — — began with the — Company of —, and then went to the office of the master mechanic of the Eastern Division of the Bos-

ton & Maine, at —, at \$10 per week, being promoted from that position to a position in the office of the superintendent of motive power of the Boston & Maine at the North Station. He has recently resigned his position there, where he was receiving \$50 per month, to become private secretary to —.

I may also mention Miss — —, who went first to the State Institution for —, and after a year or so was engaged by the — Life Insurance Company as a stenographer, being promoted from time to time, until for nearly two years she has given up stenography and is devoting her whole time to examining mortgages offered as security for loans, in order to determine the correctness of the form of these securities. She told me some time ago that she was receiving \$18 per week, with a prospect of her being paid at least \$25 per week within a reasonable time.

I call your attention, also, to the fact that practically every one of these young people is a child of a poor family, — that is, of a family that needed the help which the income from these positions provides. In one instance in particular it has developed recently that the income thus produced was practically the sole source of support for a family for two or three years, while the younger members of the family were being put through our schools.

E. E. GAYLORD.

THE TECHNICAL HIGH SCHOOL, SPRINGFIELD, MASS., Oct. 8, 1908.

HON. GEORGE H. MARTIN, *Secretary, State Board of Education, Boston, Mass.*

MY DEAR MR. MARTIN: — I have already replied briefly to your letter of September 22, referring to the statement that the work of commercial departments in high schools has been unsatisfactory both in technical efficiency and in general educational results; but I am now ready to reply to your inquiries more specifically.

Some justification for the criticism can undoubtedly be found in the very large number of schools in which commercial work has been done on the department plan; but I believe this criticism should be qualified by an examination into and an acknowledgment of the conditions under which commercial work is done. Almost invariably it will be found that the unsatisfactory work has been done under unfair conditions. When added to the already crowded classes of a high school in which provision cannot easily be made for suitable rooms and appliances, it is most natural that commercial work should be side-tracked. It is often consigned to the attic or the basement or to some corner in the corridor, since every other available space is needed for the older courses in the school. Even when it is not seemingly necessary to impose upon commercial work mechanical conditions which are manifestly inferior to those under which the long-established courses are carried on, the work may suffer from a wrong attitude toward it on

the part of the principal of the school and the teachers of traditional subjects. It is not unnatural that principals and teachers of the old-school type should look upon this work as being less cultural, and, from their point of view, therefore less educational, and so of secondary importance to the old-line studies. The unsatisfactory results are due not so much to the faulty equipment in rooms and appliances which commercial departments have to put up with, sometimes necessarily, as to lack of interest and enthusiasm on the part of the school management. If this work is an unwelcome addition to the school program, or if it is taken in gladly enough, but with the idea that it is designed only for an inferior order of pupils, the work is naturally placed at the outset upon a low plane. Such a policy results in an inferior teaching force, and in establishing a drift towards this work of pupils of inferior ability. I have known instances where this spirit has prevailed in large schools, with the result that a better class of pupils really desiring commercial work were allowed to maintain their enrollment in other courses in the school, electing only a few distinctive branches from the commercial course, which were only given in that course. These pupils, though desiring commercial training, were encouraged to plan to graduate from courses in the school presumed to be of higher standing. Such a school should be criticized for not giving its commercial course a fair chance, and it should not be taken as justifying a criticism against commercial work in high schools as such.

Commercial high school departments are successful when and only when the policy under which this work is done is as sound as that which underlies the work of the older successful school departments, and is administered with wisdom and zeal. It cannot be made successful by teachers whose general training and culture could not classify them as high school teachers, whose special commercial training is defective, and who have little appreciation of the value of culture, special training and general fitness for teaching. If there be added to this not unusual equipment of a commercial department a disposition on the part of the management to dump into such a department as much of the poor-student material of the school as possible, the conditions for unsatisfactory commercial work are quite perfect. It is not surprising that business men find fault with the product of commercial work carried on in an unbusinesslike way. If such a policy were followed in college preparatory departments, we should very quickly hear from the colleges. College admission examinations may furnish a comparatively prompt test of the efficiency of high school preparation; but the trial of graduates from the commercial departments in actual business is a no less sure test. I am glad that I can say that business men who have taken the graduates from our commercial department have in many instances come to us repeatedly for other graduates to go into their service.

The head of our commercial department, Mr. Carlos B. Ellis, has

prepared a detailed statement which I think justifies our claim for the efficiency of the commercial work in the Technical High School. I am very glad to make this statement a part of my report by simply forwarding it in the exact form in which it comes to me.

Very respectfully yours,

CHAS. F. WARNER, *Principal.*

The question, "Have the results justified the introduction of the commercial course in Springfield?" may be answered in three ways:—

First.—Do the graduates find employment readily? During the fall of 1907 a questionnaire was sent to each graduate of the commercial department, in order to obtain exact information concerning their employment and earnings. The two following tables give the facts in regard to employment:—

YOUNG MEN GRADUATES.									
Number graduated,	.	.	.	.	.	.	.	.	76
Number employed:—									
In business for self,	.	.	.	.	.	.	.	.	4
In business with father,	.	.	.	.	.	.	.	.	2
Working for others,	.	.	.	.	.	.	.	.	56
								—	62
Number in college,	.	.	.	.	.	.	.	.	1
Number sick,	.	.	.	.	.	.	.	.	1
Number out of work,	.	.	.	.	.	.	.	.	2
Number who did not reply,	.	.	.	.	.	.	.	.	10 ¹
								—	76

YOUNG WOMEN GRADUATES.									
Number graduated,	.	.	.	.	.	.	.	.	151
Number in business offices,	.	.	.	.	.	.	.	.	106
Number teaching,	.	.	.	.	.	.	.	.	3
Number in school,	.	.	.	.	.	.	.	.	2
Number helping at home,	.	.	.	.	.	.	.	.	3
Number ill,	.	.	.	.	.	.	.	.	2
Number unemployed,	.	.	.	.	.	.	.	.	6
Number married,	.	.	.	.	.	.	.	.	20
Number who did not reply,	.	.	.	.	.	.	.	.	9 ²
								—	151

Second.—Do the earnings of these graduates indicate that their technical training has any special value? At about the same time that the questionnaire was sent to the graduates of the commercial department, another questionnaire was sent to representative business houses of the city, including mercantile establishments, manufacturing concerns, publishing houses, banks and insurance offices. The purpose

¹ Of the 10 who did not reply, 2 are in business for themselves and 3 have good positions; the whereabouts of the other 5 are not known.

² Of the 9 who did not reply, 1 is married and 3 have good positions; the whereabouts of the other 5 are not known.

of this questionnaire was to ascertain the average salaries paid by employers in this city for office help of all kinds without experience, and the average salaries paid after an experience of at least three or four years. The different kinds of employment were classified as follows: bookkeepers, stenographers, office clerks and salesmen.

The question is not whether the salaries paid to graduates of the commercial department are high or low as compared with other cities, but whether these salaries are high or low as compared with the general standard of salaries in the city of Springfield. The following table gives the results of this comparison:—

SALARIES OF PEOPLE WITHOUT OFFICE EXPERIENCE.

	Boys.	Girls.
Average salaries of graduates of the commercial department, without experience.	\$386 90	\$337 70
Average salaries paid by the business houses of Springfield to persons ¹ of the same age, without experience.	349 96	314 60
Difference in favor of the school,	\$36 94	\$23 10

SALARIES OF PEOPLE WITH AT LEAST THREE YEARS' EXPERIENCE.

	Men.	Women.
Salaries of the classes of the commercial department who have been out of school at least three years.	\$953 71	\$602 96
Average salaries paid by the business houses of Springfield for the same kinds of work to people ¹ who have had at least three years' experience.	731 64	534 56
Difference in favor of the school,. . . .	\$222 07	\$68 30

¹ Not graduates.

The difference is not so marked in the case of the young women graduates, for the reason that the positions paying the highest salaries are not open to them.

The following tables are also of interest, as showing the earnings of the several classes:—

YOUNG WOMEN GRADUATES.

CLASS.	Years since graduation.	First salary (averages).	Present salary (averages).	Yearly increase (averages).
1900,	7½	\$331 44	\$766 38	\$57 96
1901,	6½	351 73	511 50	24 58
1902,	5½	306 00	637 00	60 19
1903,	4½	352 83	575 71	49 52
1904,	3½	312 00	523 71	60 19
1905,	2½	363 62	505 71	56 83
1906,	1½	346 64	428 46	54 53
1907,	½	337 34	355 35	36 00
Averages,	4	\$337 70	\$537 98	\$50 02

YOUNG MEN GRADUATES.

CLASS.	Years since graduation.	First salary (averages).	Present salary (averages).	Yearly increase (averages).
1900,	7½	\$308 50	\$1,100 00	\$105 53
1901,	6½	426 40	994 40	87 39
1902,	5½	321 20	969 80	117 93
1903,	4½	368 67	891 33	116 15
1904,	3½	379 14	813 00	123 91
1905,	2½	517 33	735 33	87 20
1906,	1½	381 33	617 33	157 33
1907,	½	392 64	461 00	136 72
Averages,	4	\$386 90	\$822 77	\$116 52

Attention is especially called to the fact that the young women have received an average annual increase in salary of \$50.02, and the young men an annual increase of \$116.52; also, that these increases were continued up to the date of the investigation, so that there is no reason to suppose that these classes have reached their maximum earning capacity. The tables certainly indicate that these graduates have made good.

The following table shows the results of the questionnaire in regard to salaries, which was sent to business men in Springfield:—

SALARIES OF PEOPLE WITHOUT OFFICE EXPERIENCE.

	Boys.	Girls.
Bookkeeping department,	\$7 44	\$6 38
Stenographers,	7 50	7 00
General office work,	5 48	5 56
Salesmen,	6 50	5 25
Average per week,	\$6 73	\$6 05
Average per year,	349 96	314 60

SALARIES OF PEOPLE WITH AT LEAST THREE YEARS' EXPERIENCE.

	Men.	Women.
Bookkeeping department,	\$14 86	\$11 00
Stenographers,	16 00	11 20
General office work,	10 60	9 43
Salesmen,	14 83	9 50
Average per week,	\$14 07	\$10 28
Average per year,	731 64	534 56

In the above table the two groups of bookkeepers and stenographers are the only groups where special training is a prerequisite, as it is quite possible for young people to enter upon the duties of general office work or salesmen without any special training.

If the figures for these two groups are compared, the following results will be obtained:—

AVERAGE WEEKLY BEGINNING SALARIES.

	Boys.	Girls.
Bookkeepers and stenographers,	\$7 47	\$6 69
Clerks and salesmen,	5 99	5 40
Difference per week,	\$1 48	\$1 29
Difference per year,	76 96	67 08

AVERAGE WEEKLY SALARY FOR PEOPLE WITH AT LEAST THREE YEARS' EXPERIENCE.

	Men.	Women.
Bookkeepers and stenographers,	\$15 43	\$11 10
Clerks and salesmen,	12 71	9 46
Difference per week,	\$2 72	\$1 64
Difference per year,	141 44	85 28

This table shows that on an average bookkeepers and stenographers receive better pay, both at the start and after they have acquired experience, than general clerks and salesmen. It may be said that one can learn bookkeeping in an office, and that this table does not necessarily prove that this vocational training has any special value, but this will not explain the initial differences.

No one will claim that one can be a stenographer without special training, and from the table on the preceding page it will be seen that stenographers receive better salaries than those in any other group, both at the beginning and after they have acquired experience; and in this one case at least it cannot be disputed that the vocational training has prepared them for these better salaries.

Third. — What do business men say of the graduates of the commercial department? The following quotations are extracts from letters from representative men of the city: —

One of the largest publishing houses says: "We have had experience in hiring many stenographers, especially during the last few years, and whenever we are not obliged to fill a place with a stenographer who has had several years' actual office experience we always try to get a graduate of the Springfield high school."

One of the largest mercantile houses, which has employed several graduates of the commercial department, says: "Without an exception all have given entire satisfaction. Their work shows thorough training, not only in the capacity of stenographers, but in the little details which add so much to make office work run smoothly. They show thorough training not only in their desk work, but also give evidence of good mental training outside of this."

Summary. — Excluding the 19 graduates who have not replied to the questionnaire, we have shown that out of the 208 other graduates there were only 11 who were out of employment at the time of the investigation, and 3 of these were ill and unable to work.

We have also shown that the initial salaries of these graduates are greater than the average salaries paid to people of the same age, without experience, in the city of Springfield; and also that the salaries paid to these graduates after they have acquired at least three years'

experience are materially greater than the general average paid to people of experience in this city. In the case of the young women, the difference in favor of the school is \$68.30, or 12 per cent., more than the average; in the case of the young men, the difference is \$222.07 in favor of the school, or 30 per cent. more than the general average.

We have also given quotations from some of the leading business men of Springfield, showing their personal appreciation of these graduates.

Doubtless there are some who still believe that any good high school course would give all necessary training for most business positions, or that technical training should be given, if at all, only as a part of a college course. In answer we can only say that this view does not make any provision for the large number of pupils who would not take a high school training if these vocational subjects were not offered.

CARLOS B. ELLIS.

BROCKTON HIGH SCHOOL, BROCKTON, MASS., Oct. 28, 1908.

MR. GEORGE H. MARTIN, *Secretary, State Board of Education, Boston, Mass.*

MY DEAR MR. MARTIN:—Your letter making an inquiry regarding my opinion of the value or success of the commercial department in the high school, and in particular of the one in my own school, has been received.

In my opinion, the statement to which you refer, that such instruction had proved a failure, is not warranted by the facts here in Massachusetts. I am very sure that the commercial course in the English high school at Somerville and the course here in Brockton are accomplishing in a large way the ends sought in the establishment of such courses. I do not mean to say that they are perfect courses, but I do believe that the practical efficiency of the young people who have taken such courses has been decidedly increased.

In the schools over which I have had charge the pupils have not sacrificed cultural training to such an extent as to make the net result a loss rather than a gain in education, for a four years' course in English and history and a two years' course in mathematics have been required of all such pupils, in addition to commercial work. They have also been urged to take courses in language, science, manual training, mechanical drawing, etc., and a large proportion of our pupils have taken such courses.

I can conceive of courses in some schools which have been blocked out as commercial courses for the purpose merely of providing studies such as one might obtain in some commercial colleges, being narrow, and sacrificing cultural training. We have always distinctly avoided that line of commercial preparation.

I could furnish many special illustrations of the influence and value of the courses which have been provided both in Somerville and Brock-

ton. My experience of eleven years in Somerville, particularly, could furnish many of these illustrations.

I had more applications from the city of Boston for pupils trained in the Somerville English high school than I could fill; and it is noticeable here in Brockton that the applications are greatly in excess of the supply.

Very truly yours,

C. T. C. WHITCOMB, *Head Master.*

THE HIGH SCHOOL, REVERE, MASS., Nov. 13, 1908.

Mr. GEORGE H. MARTIN, *Secretary, State Board of Education, Boston, Mass.*

MY DEAR MR. MARTIN:—Several weeks ago you wrote to me in regard to the value of commercial training in the Revere high school. On receipt of your inquiry I sent out a letter of inquiry to a number of the graduates of the high school here, and have lately received the last answer to my questions.

I can sum up the testimony of our graduates and my own observation by saying that the really worthy pupils who complete our commercial course find little difficulty in securing and holding good positions. Those from whom I heard are now receiving from \$8 to \$12 per week as stenographers and bookkeepers. None of them have been at work over three years. I believe the commercial training has been a decided advantage to these young people. One of the young ladies writes to me as follows: "I have a very fine position, and of course owe it all to my education received at the Revere high school, and I am very glad I took up the commercial course."

I may say for myself that I strongly believe in the commercial work in high schools. The work in this department must, I think, be treated with as much respect as that in any other department, if it is to be successful.

Yours very truly,

FRANK P. MORSE, *Principal.*

TEACHERS' INSTITUTES.

The statistics of the regular institutes for 1908 are as follows: —

WHERE HELD.	Date.	Number of towns represented.	Number of members.	Number of exercises.
Ayer, ¹	Nov. 6,	10	128	10
Charlemont,	Jan. 21,	5	125	4
Chicopee,	April 24,	7	127	13
Dighton,	April 22,	8	85	8
Franklin,	April 27,	11	153	13
Great Barrington,	Feb. 10,	3	125	4
Greenfield,	May 12,	7	165	13
Hudson,	May 6,	11	197	13
Huntington,	April 22,	8	65	11
Ipswich,	April 29,	10	113	13
Lunenburg,	Feb. 26,	7	161	5
Middleborough,	May 1,	14	177	13
North Andover,	May 8,	10	181	13
Orange,	April 30,	11	89	13
Pittsfield,	April 21,	30	500	11
Scituate,	April 24,	10	141	13
Sheffield,	Feb. 10,	4	85	4
Shelburne Falls,	April 28,	9	62	13
Southwick,	Feb. 12,	4	115	6
Stoughton,	May 4,	13	241	13
Ware,	May 8,	9	187	13
Totals (21),	—	202	3,222	219

¹ United with the Northwest Middlesex County Teachers' Association meeting.

EVENING SCHOOLS.

For details of evening school attendance, number of teachers, expenditures, etc., reference should be made to page xcvi of the abstract of the school returns.

The following table shows what is being done in the State to furnish instruction beyond the elements in evening schools:—

CITIES AND TOWNS.	High.	Drawing.	Technical.	CITIES AND TOWNS.	High.	Drawing.	Technical.
Adams, . . .	—	—	—	Medford, . . .	1	1	—
Attleborough, . . .	—	—	—	Milford, . . .	—	—	—
Beverly, . . .	2	3	2	New Bedford, . . .	—	—	2
Boston, . . .	5	6	—	Newburyport, . . .	—	—	—
Brockton, . . .	1	2	—	Newton, . . .	—	1	—
Brookline, . . .	—	1	2	North Adams, . . .	—	1	—
Cambridge, . . .	1	2	1	Northampton, . . .	—	—	—
Chelsea, . . .	—	—	—	North Attleborough, . . .	—	—	—
Chicopee, . . .	—	1	—	Northbridge, . . .	—	—	—
Clinton, . . .	—	1	—	Norwood, . . .	1	—	—
Dudley, . . .	—	—	—	Peabody, . . .	—	—	—
Easthampton, . . .	—	—	—	Pittsfield, . . .	2	2	—
Everett, . . .	—	1	2	Plymouth, . . .	—	—	—
Fall River, . . .	2	2	—	Quincy, . . .	—	1	—
Fitchburg, . . .	—	—	—	Rockland, . . .	—	—	—
Framingham, . . .	—	—	—	Salem, . . .	—	1	—
Gardner, . . .	—	—	—	Somerville, . . .	1	—	—
Gloucester, . . .	—	—	—	Southbridge, . . .	—	—	—
Grafton, . . .	—	—	—	Spencer, . . .	—	—	—
Greenfield, . . .	—	—	—	Springfield, . . .	1	1	1
Hatfield, . . .	—	—	—	Taunton, . . .	1	3	—
Haverhill, . . .	1	1	2	Wakefield, . . .	—	—	—
Holyoke, . . .	1	—	1	Waltham, . . .	1	1	1
Hyde Park, . . .	—	1	—	Warren, . . .	—	—	—
Lawrence, . . .	1	1	—	Webster, . . .	—	—	—
Leominster, . . .	—	—	—	Westfield, . . .	—	—	—
Lowell, . . .	1	15	—	Woburn, . . .	—	1	2
Lynn, . . .	—	1	—	Worcester, . . .	1	3	1
Malden, . . .	—	1	—		24	55	17
Marlborough, . . .	—	—	—				

KINDERGARTENS.

Table showing the number and location of public kindergartens kept during the school year ending in June, 1907, and cost of their maintenance.

CITIES AND TOWNS.	Number of public kindergartens.	Number of teachers.	Number of different pupils.	Minimum age at which pupils are admitted.		Cost.
				Yrs.	Mos.	
Andover, . .	3	3	97	4	—	\$2,081 40
Attleborough, . .	2	3	95	4	—	1,737 61
Boston, . . .	108	210	7,170	3	6	158,574 67
Braintree, . .	4	4	145	4	—	1,740 00
Bridgewater, . .	1	2	41	3	6	1,500 00
Brookline, . .	11	20	473	3	2	16,226 37
Cambridge, . .	16	31	919	3	6	19,998 22
Chelsea, . . .	2	2	104	5	—	1,270 00
Chicopee, . . .	2	2	60	3	—	1,010 00
Dedham, . . .	4	7	154	4	—	2,400 00
Easton, ¹ . . .	1	2	52	3	—	725 00
Fall River, . .	3	6	172	3	—	3,405 29
Falmouth, . .	1	1	20	4	—	500 00
Framingham, . .	2	3	79	3	6	2,000 00
Greenfield, . .	2	2	45	4	—	650 00
Haverhill, . .	10	9	479	3	10	5,520 00
Holyoke, . . .	8	16	502	4	6	7,951 92
Hopedale, . .	1	1	24	4	—	923 37
Lee, ²	1	2	41	3	—	550 00
Lowell,	13	25	720	3	6	16,801 56
Manchester, . .	1	2	51	3	6	975 00
Marblehead, . .	2	4	104	4	—	1,258 57
Medford, . . .	6	5	231	4	—	3,400 00
Milton,	4	7	148	3	6	4,800 00
New Bedford, . .	4	8	235	4	—	4,482 64
Newton,	19	30	782	4	—	17,139 66
North Adams, . .	5	11	278	4	—	4,000 00
Northampton, . .	6	7	178	4	—	4,098 14

¹ Supported by Oakes Ames fund.² Partly supported by private individuals.

Number and location of public kindergartens, etc. — Concluded.

CITIES AND TOWNS.	Number of public kindergartens.	Number of teachers.	Number of different pupils.	Minimum age at which pupils are admitted.		Cost.
				Yrs.	Mos.	
Oak Bluffs, . . .	1	1	35	5	—	\$442 00
Pittsfield, . . .	3	6	169	4	—	2,825 00
Salem, . . .	5	10	301	4	—	4,713 00
Somerville, . . .	4	8	410	4	—	3,956 03
Springfield, . . .	14	30	1,143	4	—	15,824 76
Waltham, . . .	4	7	103	4	6	—
Wellesley, . . .	1	2	24	—	—	589 16
Westfield, . . .	4	8	130	4	6	2,000 00
West Springfield, . . .	3	2	118	4	6	835 20
Winchester, . . .	2	4	80	4	—	1,505 27
Worcester, . . .	26	37	1,345	4	—	23,310 10
Totals, . . .	309	540	17,257	3 to 5 yrs.		\$341,719 94

VACATION SCHOOLS, 1907.

CITIES AND TOWNS.	NUMBER OF —			Average length of schooling.		Total expenditure for support of schools.
	Schools.	Teachers.	Pupils.	Mos.	Days.	
Athol, . . .	1	5	36	—	15	\$42 00
Attleborough, . . .	2	4	114	1	8½	244 51
Boston, . . .	10	148	9,082	1	—	5,544 80
Brookline, . . .	3	12	789	1	10	1,761 46
Cambridge, . . .	5	29	1,298	1	5	1,913 39
Haverhill, . . .	3	30	1,250	1	5	902 04
Lawrence, . . .	5	26	979	1	—	727 93
Manchester, . . .	2	2	34	1	10	130 00
Medford, . . .	1	5	135	1	5	150 00
Milford, . . .	1	3	128	1	10	138 00
Newton, . . .	1	14	514	1	10	882 96
Totals, . . .	34	278	14,359	1	8½	\$12,437 09

STATE AID FOR HIGH SCHOOLS.

Towns containing 500 families are required to maintain high schools. Other towns may maintain such schools, and if approved by the Board of Education may receive State aid to the amount of \$500.

The following 44 towns, having complied with the conditions, were entitled to receive the \$500 grant in 1908. Twenty-six towns received the grant in 1903, 34 in 1904, 36 in 1905, 37 in 1906, and 40 in 1907. The towns added to the list this year are Charlemont, Douglas, New Marlborough and Shirley.

Ashby,	Huntington,	Sandwich,
Ashfield,	Littleton,	Sharon,
Ashland,	Lunenburg,	Sheffield,
Avon,	Medfield,	Shelburne,
Bernardston,	Mendon,	Shirley,
Bolton,	Millis,	Shrewsbury,
Charlemont,	New Marlborough,	Southborough,
Charlton,	New Salem,	Stow,
Chester,	Northborough,	Sudbury,
Conway,	Northfield,	Tisbury,
Douglas,	Norwell,	West Boylston,
Edgartown,	Orleans,	West Newbury,
Essex,	Petersham,	Wilmington,
Granby,	Plainville,	Wrentham. — 44
Hadley,	Rutland,	

REIMBURSEMENT FOR HIGH SCHOOL TUITION.

Towns having less than 500 families, and not maintaining a high school, must make provision for high school instruction in other towns. They may be reimbursed by the State for one half or for the whole of the cost of such instruction. The high schools to which children are sent must be approved by the Board of Education.

Under the provisions of the law, 97 towns sending 1,114 pupils were reimbursed wholly or in part by the State. The number of towns is the same and the number of pupils 53 more than last year. The amount distributed by the State for their tuition was \$38,808.43. The total obligation of the State for high school aid was \$60,808.43.

Only 9 towns have no children in high schools. The average membership of all the elementary schools in these towns is 464.

Table showing high school tuition reimbursements under section 3, chapter 42, Revised Laws, as amended by chapter 433, Acts of 1902.

[NOTE. — Towns the names of which are italicized were reimbursed by the State for half tuition expenditures only.]

Towns.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Acushnet, . . .	18	Fairhaven, . . .	\$75 00	\$1,260 00
“ . . .	1	New Bedford, . . .	{ 82 50 75 00	} 78 00
Alford, . . .	7	Great Barrington (Searles), .	54 00	378 00
Auburn, . . .	19	Worcester (English), . . .	60 00	472 50
“ . . .	1	Worcester (Classical), . . .	60 00	30 00
Becket, . . .	12	Chester, . . .	50 00	495 00
“ . . .	2	Westfield, . . .	50 00	70 00
Bedford, . . .	43	Concord, . . .	48 00	1,000 00
Bellingham, . . .	9	Milford, . . .	38 00	171 00
“ . . .	23	Franklin, . . .	30 00	283 13
Berkley, . . .	8	Taunton, . . .	50 00	358 75
“ . . .	2	Fall River, . . .	60 00	90 00
Berlin, . . .	1	Northborough, . . .	30 00	30 00
“ . . .	8	Hudson, . . .	40 00	261 00
“ . . .	17	Clinton, . . .	40 00	656 00
Blandford, . . .	1	Springfield (Central), . . .	75 00	30 00
“ . . .	6	Westfield, . . .	50 00	280 00
“ . . .	3	Huntington, . . .	45 00	63 26
“ . . .	1	Chester, . . .	50 00	50 00
Boxborough, . . .	5	Concord, . . .	48 00	240 00
“ . . .	2	Littleton, . . .	30 00	60 00
Boylston, . . .	3	Worcester (English), . . .	60 00	180 00
“ . . .	2	Worcester (Classical), . . .	60 00	120 00
“ . . .	2	Clinton, . . .	40 00	59 00
“ . . .	1	Northborough, . . .	30 00	30 00
Buckland, . . .	51	Shelburne Falls (Arms Academy).	36 00	1,746 00
Carlisle, . . .	1	Lowell, . . .	60 00	60 00
“ . . .	3	Concord, . . .	48 00	144 00
“ . . .	1	Chelmsford (Centre), . . .	24 00	16 00

High school tuition reimbursements, etc. — Continued.

Towns.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Cheshire, . . .	1	North Adams, . . .	\$45 00	\$45 00
“ . . .	15	Adams, . . .	30 00	440 00
Chesterfield, . . .	2	Springfield (Central), . . .	75 00	150 00
Clarksburg, . . .	11	North Adams, . . .	45 00	435 00
Colrain, . . .	5	Greenfield, . . .	30 00	123 00
“ . . .	29	Shelburne Falls (Arms Academy).	36 00	912 00
Cummington, . . .	5	Ashfield, . . .	30 00	150 00
“ . . .	10	Northampton, . . .	50 00	500 00
Dunstable, . . .	1	Lowell, . . .	60 00	60 00
Eastham, . . .	19	Orleans, . . .	32 00	547 20
East Longmeadow, . . .	8	Springfield (Central), . . .	75 00	472 50
“ “ . . .	15	Springfield (Technical), . . .	75 00	1,072 50
Egremont, . . .	5	Great Barrington (Searles), . . .	54 00	252 00
Enfield, . . .	14	Athol, . . .	36 00	467 00
“ . . .	2	New Salem, . . .	30 00	35 00
Erving, . . .	6	Orange, . . .	40 00	120 00
“ . . .	6	Montague (Turners Falls), . . .	30 00	77 37
“ . . .	1	Athol, . . .	36 00	18 00
“ . . .	7	Greenfield, . . .	30 00	97 50
Florida, . . .	3	North Adams, . . .	45 00	135 00
“ . . .	1	Charlemont, . . .	45 00	15 00
Freetown, . . .	2	New Bedford, . . .	{ 82 50 75 00 }	{ 78 00 }
“ . . .	16	Fall River, . . .	60 00	442 50
Gay Head, . . .	1	New Bedford, . . .	{ 82 50 75 00 }	{ 80 14 }
Gill, . . .	7	Montague (Turners Falls), . . .	30 00	186 75
“ . . .	2	Bernardston (Powers Institute).	21 00	42 00
Goshen, . . .	3	Williamsburg (Centre), . . .	26 00	65 00
“ . . .	3	Ashfield, . . .	30 00	71 25
“ . . .	1	Amherst, . . .	35 00	14 40
Granville, . . .	3	Westfield, . . .	50 00	125 00
“ . . .	1	Springfield (Technical), . . .	75 00	30 00
Greenwich, . . .	4	Athol, . . .	36 00	115 10

High school tuition reimbursements, etc. — Continued.

Towns.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Greenwich, . . .	3	New Salem, . . .	\$30 00	\$70 00
Halifax, . . .	2	Bridgewater, . . .	50 00	100 00
Hampden, . . .	4	Springfield (Central), . .	75 00	240 00
" . . .	2	Springfield (Technical), .	75 00	97 50
Hancock, . . .	1	Pittsfield,	36 00	36 00
Hanson, . . .	24	Whitman,	40 00	315 06
Hawley, . . .	1	Shelburne Falls (Arms Acad- emy).	36 00	36 00
Heath, . . .	2	Shelburne Falls (Arms Acad- emy).	36 00	60 00
" . . .	3	Charlemont,	45 00	135 00
Hinsdale, . . .	4	Pittsfield,	36 00	144 00
" . . .	7	Dalton,	30 00	179 75
Hubbardston, . .	2	Barre,	50 00	100 00
" . . .	5	Gardner,	30 00	73 00
Lakeville, . . .	13	Middleborough,	55 00	621 50
" . . .	2	Taunton,	50 00	100 00
Lanesborough, . .	3	Pittsfield,	36 00	108 00
Leverett, . . .	1	New Salem,	30 00	30 00
" . . .	6	Montague (Centre), . . .	30 00	180 00
" . . .	5	Amherst,	35 00	175 00
Leyden, . . .	1	Northfield,	36 00	36 00
" . . .	1	Greenfield,	30 00	30 00
Longmeadow, . . .	8	Springfield (Technical), .	75 00	300 00
" . . .	17	Springfield (Central), . .	75 00	581 25
Lynnfield, . . .	20	Wakefield,	40 00	659 00
" . . .	2	Peabody,	45 00	90 00
" . . .	1	Lynn (English),	65 00	65 00
Middlefield, . . .	3	Chester,	50 00	52 50
" . . .	1	Springfield (Central), . .	75 00	75 00
Middleton, . . .	21	Danvers,	50 00	1,000 00
Monroe, . . .	2	Charlemont,	45 00	90 00
Monterey, . . .	6	Great Barrington (Searles), .	54 00	234 00
Montgomery, . . .	2	Westfield,	50 00	85 00

High school tuition reimbursements, etc. — Continued.

Towns.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Montgomery, . .	3	Huntington,	\$45 00	\$135 00
Mt. Washington, .	4	Great Barrington (Searles), .	54 00	216 00
New Braintree, . .	1	Hardwick,	40 00	40 00
Newbury,	14	Newburyport,	{ 12 00 ¹ 15 00 ¹ }	83 00
Norfolk,	2	Franklin,	30 00	59 25
"	5	Walpole,	40 00	200 00
"	3	Boston (English),	95 00	285 00
North Reading, . .	41	Reading,	50 00	1,911 25
Oakham,	1	Rutland,	40 00	8 00
"	4	Barre,	50 00	200 00
Paxton,	4	Worcester (Classical),	60 00	240 00
"	3	Worcester (English),	60 00	120 00
"	1	Worcester (South),	60 00	60 00
Pelham,	8	Amherst,	35 00	280 00
Phillipston,	3	Athol,	36 00	83 70
"	1	Templeton,	40 00	40 00
Plainfield,	2	Northampton,	50 00	100 00
"	1	Ashfield,	30 00	30 00
Plympton,	1	Whitman,	40 00	40 00
"	1	Middleborough,	55 00	55 00
"	5	Kingston,	45 00	225 00
Prescott,	1	New Salem,	30 00	30 00
"	2	Athol,	36 00	72 00
Princeton,	1	Worcester (English),	60 00	30 00
Raynham,	3	Bridgewater,	50 00	105 00
"	2	Easton,	36 00	72 00
"	1	Brockton,	75 00	75 00
"	11	Taunton,	50 00	550 00
Rehoboth,	3	Taunton,	50 00	75 00
"	3	Attleborough,	60 00	90 00
"	1	Fall River,	60 00	30 00

¹ Foreign languages only.

High school tuition reimbursements, etc. — Continued.

Towns.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Richmond, . . .	6	Pittsfield, . . .	\$36 00	\$189 00
Rochester, . . .	8	Fairhaven, . . .	75 00	600 00
“ . . .	4	Fairhaven, . . .	75 00	285 00 ¹
“ . . .	3	Middleborough, . . .	55 00	77 00
“ . . .	3	Wareham, . . .	45 00	135 00
Rowe, . . .	1	North Adams, . . .	45 00	45 00
“ . . .	4	Charlemont, . . .	45 00	150 00
Rowley, . . .	8	Ipswich, . . .	40 00	288 00
“ . . .	7	Newburyport, . . .	48 00	304 00
Royalston, . . .	4	Athol, . . .	36 00	98 70
“ . . .	3	Templeton, . . .	40 00	120 00
Russell, . . .	3	Huntington, . . .	45 00	120 38
Salisbury, . . .	12	Newburyport, . . .	{ 12 00 ² 15 00 ² }	71 50
“ . . .	1	Amesbury, . . .	30 00	4 12
Seekonk, . . .	13	Fall River, . . .	60 00	292 50
“ . . .	7	Attleborough, . . .	45 00	157 50
“ . . .	2	Taunton, . . .	50 00	50 00
Shutesbury, . . .	1	Amherst, . . .	35 00	35 00
“ . . .	1	Montague (Centre), . . .	30 00	30 00
“ . . .	2	New Salem, . . .	30 00	50 00
Southampton, . . .	12	Easthampton, . . .	45 00	518 62
“ . . .	2	Northampton, . . .	50 00	100 00
Southwick, . . .	12	Westfield, . . .	50 00	528 75
Sterling, . . .	2	Worcester (Classical), . . .	60 00	37 50
“ . . .	1	Clinton, . . .	40 00	20 00
Sturbridge, . . .	16	Southbridge, . . .	30 00	225 00
Sunderland, . . .	4	Montague (Centre), . . .	30 00	120 00
“ . . .	14	Amherst, . . .	35 00	490 00
Swansea, . . .	28	Fall River, . . .	60 00	750 00
Tewksbury, . . .	32	Lowell, . . .	60 00	940 00
Truro, . . .	5	Provincetown, . . .	40 00	200 00

¹ 1906-07.² Foreign languages only.

High school tuition reimbursements, etc. — Concluded.

Towns.	Number of pupils.	High schools attended.	Rate per year.	Amounts.
Truro, . . .	3	Wellfleet, . . .	\$40 00	\$120 00
Tyngsborough, .	12	Lowell, . . .	60 00	560 00
Tyringham, . .	5	Lee, . . .	50 00	250 00
Warwick, . . .	5	Orange, . . .	40 00	152 00
“ . . .	2	Northfield, . . .	36 00	72 00
Washington, . .	3	Chester, . . .	50 00	120 00
“ . . .	1	Pittsfield, . . .	36 00	36 00
Wendell, . . .	5	Orange, . . .	40 00	189 00
“ . . .	2	New Salem, . . .	30 00	60 00
West Brookfield, .	24	Warren, . . .	30 00	308 25
“ “ . . .	1	Hardwick, . . .	40 00	20 00
Westhampton, .	6	Northampton, . . .	50 00	275 00
“ . . .	2	Easthampton, . . .	45 00	90 00
Westminster, . .	5	Fitchburg, . . .	48 00	216 00
West Stockbridge, .	6	Pittsfield, . . .	36 00	216 00
“ “ . . .	9	Great Barrington (Searles), .	54 00	450 00
“ “ . . .	1	Pittsfield, . . .	36 00	13 50
West Tisbury, .	6	Tisbury (Vineyard Haven), .	40 00	218 00
Whately, . . .	6	Northampton, . . .	50 00	225 00
“ . . .	4	Greenfield, . . .	30 00	120 00
Wilbraham, . . .	1	Palmer, . . .	35 00	17 50
Williamsburg, . .	2	Northampton, . . .	50 00	50 00
Windsor, . . .	5	Dalton, . . .	30 00	150 00
“ . . .	1	Ashfield, . . .	30 00	30 00
“ . . .	1	Greenfield, . . .	30 00	15 00
“ . . .	1	Adams, . . .	30 00	30 00
Worthington, . .	1	Northampton, . . .	50 00	50 00
Totals (97 towns),	1,114	74 schools, . . .	\$44 03	\$38,808 43

Towns having a valuation per pupil in *excess* of the State average (\$7,396): —

Burlington,	Harvard (High),	Stockbridge (High),
Boxford (Academy),	Hamilton,	Topsfield (High),
Chilmark,	Lincoln,	Wellfleet (High),
Dover (High),	Mattapoissett,	Wenham,
Gosnold,	Marion (Academy),	Weston (High),
Hull,	Nahant (High),	Westwood,
Hopedale (High),	Oak Bluffs (High),	Yarmouth (High). — 21

Towns that *did not avail* themselves of the law: —

Ashburnham (Academy),	Holland,	Savoy,
Brewster (High),	Mashpee,	Sherborn (Academy),
Brimfield (Academy),	New Ashford,	Tolland,
Carver (High),	Otis,	Wales,
Dana,	Pembroke (High),	West Bridgewater
Deerfield (Academy),	Peru,	(Academy). — 19
Hatfield (Academy),	Sandisfield,	

SUPERINTENDENTS OF SCHOOLS.

The number of changes among superintendents in 1908 has been unusually large. The school year of 1908–09 opened with 68 towns and cities under new superintendents. Of the 80 unions, 20 have new men. Thirteen superintendents failed of re-election. Eleven retired voluntarily, one or two leaving the work and the others going to better positions. Ten men have left the field and 14 new men have entered it. Eleven of these received certificates of qualifications from the Board of Education after passing an examination.

The town of Nantucket employs a superintendent this year for the first time. Topsfield, which was outside a union last year, has joined the Newbury union. Saugus and Stoneham, which have employed a man jointly for several years, will hereafter act singly, each with a superintendent of its own. Walpole, which has been united with Medfield, will hereafter act alone, and Medfield has joined the Millis union. Manchester and Amesbury have separated, and each has its own superintendent.

Were all the changes made intelligently, with an eye single to the good of the schools, the outlook for the future would be

most promising. Some of them were certainly wisely made, and school conditions ought to be improved in consequence. But the reasons for others were personal rather than professional, and there is no ground to expect that the schools will be any better for them. Several of the men have been doing all that the limitations of the field would allow, but have been the victims of petty personal differences with individual members of the school committees. In other cases, where a man has been long in office, a vague feeling of restlessness has appeared, and a desire for change for the sake of change has forced the retirement of the superintendent.

Much of the dissatisfaction is due to mutual misunderstanding. The superintendent fails to present his plans or to explain his methods clearly, and the committee who would be glad to help are made to seem to obstruct. Unfortunately, some superintendents have neither definite plans and well-constructed policies, nor tact in meeting nor skill in convincing the person with whom they deal. Such men are bound to fail, and they go from one position to another, until finally they are forced to retire altogether.

The superintendency of a small town or of a union affords an opportunity for a man to show of what sort of stuff he is made, and is the best of training schools for places of larger responsibility. When a city is in need of a superintendent, and is able and willing to pay for superiority, it ought to be possible to find suitable men in these smaller places, — men who have in them the probability of growth whose success in the smaller field has been so pronounced and so conspicuous as to ensure their success under larger responsibility.

In making changes in the superintendents, there is a growing tendency on the part of school committees to seek the advice of the officers of the Board of Education. This advice is always gladly given. The secretary and agents of the Board are in a position to know much of the men seeking office as superintendent, and, knowing the needs of the various fields as they do, they can be of great service in fitting the men to the places. Especially they can be helpful in warning committees against unsuitable candidates.

EXAMINATION FOR CERTIFICATES OF APPROVAL AS SUPERINTENDENTS.

The law making the approval of the Board of Education a condition of eligibility for service in a State-aided union was passed in 1904. Examinations have been held each year since, with the following results: —

Approved in 1904,	.	.	.	.	.	.	.	.	7
Approved in 1905,	.	.	.	.	.	.	.	.	14
Approved in 1906,	.	.	.	.	.	.	.	.	23
Approved in 1907,	.	.	.	.	.	.	.	.	15
Approved in 1908,	.	.	.	.	.	.	.	.	10
Total,	.	.	.	.	.	.	.	.	69

Of these, 29 have entered the service and are now at work.

List of superintendents, alphabetically arranged, with their superintendencies.

SUPERINTENDENTS.	Salaries.	Addresses.	Superintendencies.
Adams, Charles F., . . .	\$1,600	Spencer, . . .	Spencer.
Aldrich, George I., . . .	4,000	Brookline, . . .	Brookline.
Allen, H. L., . . .	1,500	Dalton, . . .	Cheshire, Dalton.
Allison, J. Francis, . . .	1,700	Great Barrington,	Great Barrington.
Anthony, John C., . . .	1,800	Braintree, . . .	Braintree.
Armstrong, George P., . . .	2,400	Belmont, . . .	Belmont, Lexington.
Atwell, F. G., . . .	2,000	Hopedale, . . .	Bellingham, Hopedale, Mendon.
Averill, Andrew P., . . .	1,600	Edgartown, . . .	Chilmark, Edgartown, Gay Head, Oak Bluffs, Tisbury, West Tisbury.
Badger, Abner A., . . .	2,000	East Weymouth, . . .	Weymouth.
Bagnall, Francis A., . . .	2,500	Adams, . . .	Adams.
Baldwin, Edward G., . . .	1,550	West Brookfield, . . .	New Braintree, Sturbridge, West Brookfield.
Barbour, Albert L., . . .	2,200	Natick, . . .	Natick.
Barr, Preston, . . .	1,500	Lee, . . .	Lee, Otis, Monterey, Tyng-ham.
Bates, Charles H., . . .	2,000	Middleborough, . . .	Middleborough.
Bates, William C., . . .	3,500	Cambridge, . . .	Cambridge.
Bemis, George M., . . .	1,600	Plainville, . . .	Norton, Plainville, Wrentham.
Benedict, Frank H., . . .	1,500	Sutton, . . .	Auburn, Sutton.
Bliss, Don C., . . .	2,800	Brockton, . . .	Brockton.
Blodgett, S. F., . . .	2,000	South Framing-ham.	Framingham.

List of superintendents, alphabetically arranged, with their superintendencies — Continued.

SUPERINTENDENTS.	Salaries.	Addresses.	Superintendencies.
Bowman, Mortimer H., .	\$1,500	Hatfield, . .	Bernardston, Hadley, Hatfield.
Breck, Charles A., . .	1,300	Methuen, . .	Methuen.
Brick, F. S., . . .	1,500	Maynard, . .	Boxborough, Maynard, Stow.
Bridgham, E. G., . .	1,500	Lenox, . . .	Lenox.
Brittain, H. L., . .	2,500	Hyde Park, . .	Hyde Park.
Brockway, Clarence E., .	1,800	West Springfield, .	West Springfield.
Brooks, Stratton D., .	6,000	Boston, . . .	Boston.
Burke, J. E., Ass't, . .	4,500	Boston, . . .	Boston.
Byram, Charles A., . .	2,300	Pittsfield, . .	Pittsfield.
Carfrey, J. H., . . .	2,000	Wakefield, . .	Lynnfield, Wakefield.
Carr, Ernest P., . . .	1,650	Ayer,	Ayer, West Boylston.
Caswell, Almorin O., .	1,500	Marblehead, . .	Marblehead.
Chace, Seth Howard, . .	2,000	97 18th Street, Lowell.	Dracut, North Reading, Tewksbury, Tyngsborough.
Chaffin, W. E., . . .	1,625	West Dennis, . .	Brewster, Dennis, Yarmouth.
Chapman, Ira T., . . .	1,600	Millbury, . . .	Millbury, Oxford.
Clapp, George I., . . .	2,000	Woburn, . . .	Woburn.
Clark, Charles S., . . .	3,000	Somerville, . .	Somerville.
Clay, Charles L., . . .	1,600	Harvard, . . .	Bolton, Boylston, Harvard, Shirley.
Cobb, Edwin S., . . .	1,650	Uxbridge, . . .	Douglas, Uxbridge.
Coggins, W. L., . . .	1,500	Rockland, . . .	Rockland.
Cole, Albert S., . . .	1,500	North Dartmouth,	Dartmouth, Westport.
Congdon, F. K., . . .	2,000	Northampton, . .	Northampton.
Corbin, F. E., ¹ . . .	2,000	Southbridge, . .	Southbridge.
Cox, George W., . . .	2,000	Ware,	Ware.
Cragin, W. N., . . .	1,800	Bedford, . . .	Bedford, Burlington, Wilmington.
Davis, John C., . . .	1,500	Dighton, . . .	Berkley, Dighton, Rehoboth.
Davison, F. P., . . .	1,800	Turners Falls, . .	Montague.
DeMeyer, John E., . . .	1,500	Egypt,	Duxbury, Marshfield, Scituate.
Dempsey, Clarence H., .	2,300	Revere,	Revere.
Dixon, Edward, . . .	1,700	Orange,	Orange.
Douglas, Frank A., ² . .	2,100	Winthrop, . . .	Winthrop.
Drew, Frank,	1,500	Granville, . . .	Granville, Sandisfield, Southwick, Tolland.
Durfee, Everett B., . .	3,000	Fall River, . . .	Fall River.
Eaton, Charles M., ¹ . .	2,100	Weston,	Weston.
Edgerly, Joseph G., . .	2,700	Fitchburg, . . .	Fitchburg.
Eldredge, William F., .	1,200	Rockport, . . .	Rockport.
Ellinwood, George F., .	1,500	Whitman, . . .	Whitman.

¹ Also principal of high school.² Also principal of grammar school.

List of superintendents, alphabetically arranged, with their superintendencies — Continued.

SUPERINTENDENTS.	Salaries.	Addresses.	Superintendencies.
Erskine, Samuel H., ¹	\$2,000	Lancaster, . .	Lancaster.
Evans, Osman C., . .	1,500	102 Westford Street, Lowell.	Billerica, Pepperell.
Fales, Lewis A., . .	2,000	Attleborough, . .	Attleborough.
Fish, Charles E., ² . .	1,200	Amesbury, . . .	Amesbury.
Fitts, Edward P., . .	1,800	Mansfield, . . .	Mansfield, Sharon, Stoughton.
Freeman, L. A., . . .	1,500	93 Comstock Avenue, Providence, R. I.	Foxborough, Seekonk.
Frost, Gaius B., . . .	1,500	Georgetown, . .	Georgetown, Groveland, Rowley.
Fuller, Robert J., . .	1,975	North Attleborough.	North Attleborough.
Galger, George H., . .	1,500	Hyannis, . . .	Barnstable.
Gamwell, Irving H., .	1,800	Franklin, . . .	Franklin.
Gay, George E., . . .	2,400	Haverhill, . . .	Haverhill.
Goodhue, E. W., . . .	1,500	Haydenville, . .	Chesterfield, Williamsburg, Worthington.
Gordy, Wilbur F., . .	4,000	Springfield, . .	Springfield.
Gray, John C., . . .	2,000	Chicopee, . . .	Chicopee.
Gray, Lee T., . . .	2,000	Palmer, . . .	Palmer.
Gregory, B. C., . . .	2,800	Chelsea, . . .	Chelsea.
Grout, Edgar H., . . .	1,500	East Bridgewater,	East Bridgewater, Raynham, West Bridgewater.
Grover, G. Alvin, . . .	1,500	North Dana, . .	Dana, Greenwich, New Salem, Prescott.
Gushee, W. E., . . .	1,600	Ludlow, . . .	Agawam, Ludlow.
Haley, C. W., . . .	1,800	Milford, . . .	Milford.
Hall, I. Freeman, . . .	2,500	North Adams, . .	North Adams.
Hall, Wells A., ¹ . . .	2,000	Concord, . . .	Concord.
Hardy, A. L., . . .	1,800	Amherst, . . .	Amherst, Pelham.
Harris, C. A., . . .	1,500	Holliston, . . .	Holliston, Medway, Sherborn.
Harrub, H. W., . . .	2,400	Taunton, . . .	Taunton.
Hayes, James S., . . .	1,500	Rockland, . . .	Hanover, Hanson, Norwell.
Haynes, Edwin L., . .	1,700	Townsend, . . .	Ashby, Lunenburg, Townsend.
Hayward, Harriet S., Ass't,	1,500	Brockton, . . .	Brockton.
Heald, A. A., . . .	1,750	Wareham, . . .	Marion, Wareham.
Heavens, Francis J., .	2,000	Plymouth, . . .	Plymouth.
Herron, Schuyler F., .	2,300	Winchester, . .	Winchester.
Hervey, Henry D., . .	2,700	Malden, . . .	Malden.
Hine, Roderick W., . .	2,200	Dedham, . . .	Dedham.
Howard, Elmer F., . .	1,625	East Northfield, .	Gill, Leyden, Northfield, Warwick.
Howard, Nelson G., . .	2,300	Hingham Centre, .	Cohasset, Hingham, Hull.
Howes, Alfred F., . .	1,500	Sheffield, . . .	Mt. Washington, New Marlborough, Sheffield.
Humphrey, Chester W., .	1,500	Rochester, . . .	Carver, Lakeville, Rochester.

¹ Also principal of the high school.² Half time.

List of superintendents, alphabetically arranged, with their superintendencies — Continued.

SUPERINTENDENTS.	Salaries.	Addresses.	Superintendencies.
Hunt, Charles L., . .	\$2,000	Clinton, . .	Clinton.
Hutchinson, S. C., . .	1,700	Andover, . .	Andover.
Jacoby, Asher J., . .	2,700	East Milton, . .	Milton.
Jones, Asa M., . .	1,600	Charlemont,. .	Charlemont, Florida, Hawley, Heath, Monroe, Rowe.
Jones, Herbert J., . .	1,500	Sandwich, . .	Bourne, Mashpee, Sandwich.
Judkins, Clarence L., .	1,500	Ashfield, . .	Ashfield, Cummington, Goshen, Plainfield.
Keith, Allen P., . .	3,000	New Bedford, .	New Bedford.
Kendall, F. L., . .	1,500	Chelmsford, . .	Carlisle, Chelmsford, Dunstable.
Kennedy, Ambrose, . .	888	Blackstone, . .	Blackstone.
Kingman, F. W., ¹ . .	1,600	Walpole, . .	Walpole.
Knox, Herman N., . .	1,600	Provincetown, .	Provincetown, Truro, Well- fleet.
Lea, Watson C., . .	1,500	Holbrook, . .	Avon, Holbrook, Randolph.
Lewis, Alvan R., . .	1,500	Belchertown, .	Belchertown, Enfield.
Lewis, Homer P., . .	4,000	Worcester, . .	Worcester.
Lewis, Mary A., Ass't, .	1,350	Cambridge, . .	Cambridge.
Lincoln, Mary L., . .	1,000	Nantucket, . .	Nantucket.
Loring, Everett G., . .	1,650	Kingston, . .	Halifax, Kingston, Pembroke, Plympton.
Lyman, C. S., . .	1,950	Hudson, . .	Hudson, Lincoln.
Mackin, John C., ² . .	1,650	Manchester, . .	Manchester.
Manning, John H., ³ . .	1,550	Groton, . .	Groton.
Marsh, Frank M., . .	2,100	Fairhaven, . .	Acushnet, Fairhaven, Matta- poisett.
Martin, Robert M., ⁴ . .	720	12½ Hawthorne Street, Salem.	Ipswich. .
Mason, Wallace E., . .	2,100	North Andover, .	North Andover.
Melcher, S. A., . .	2,350	Whitinsville, .	Northbridge.
Merriam, Burr J., . .	1,500	Brookfield, . .	Brookfield, North Brookfield.
Merrill, Leon O., . .	1,500	Huntington, . .	Blandford, Huntington, Mont- gomery, Russell.
Miller, W. D., . .	1,700	Easthampton, .	Easthampton, Southampton, Westhampton.
Mitchell, Walter G., .	1,200	Williamstown, .	Williamstown.
Morrill, Alfred B., . .	1,500	Leicester, . .	Charlton, Leicester.
Morse, Charles H., . .	2,800	Medford, . .	Medford.
Morton, O. A., . .	2,000	Marlborough, .	Marlborough.
Nickerson, Fred H., . .	2,450	Melrose, . .	Melrose.
O'Donnell, James J., .	3,000	Holyoke, . .	Holyoke.
Parker, Walter S., Ass't, .	4,500	Boston, . .	Boston.
Parkinson, William D., .	2,500	Waltham, . .	Waltham.
Parlin, Frank E., . .	2,700	Quincy, . .	Quincy.
Paull, A. R., . .	1,500	Shelburne Falls, .	Buckland, Colrain, Shelburne.

¹ 4 days per week.² Unites teaching with supervising.³ Also principal of high school.⁴ 2½ days per week.

List of superintendents, alphabetically arranged, with their superintendencies — Continued.

SUPERINTENDENTS.	Salaries.	Addresses.	Superintendencies.
Pearson, Parker T., . . .	\$1,600	Warren, . . .	Holland, Wales, Warrer
Peaslee, Frank J., . . .	3,000	Lynn, . . .	Lynn.
Pelo, W. J., . . .	1,000	Swampscott, . . .	Swampscott.
Perkins, James S., . . .	1,800	Canton, . . .	Canton.
Perkins, John W., . . .	2,500	Salem, . . .	Salem.
Perrin, Marshall L., . . .	1,500	Wellesley Hills, . . .	Wellesley.
Poland, Mary L., . . .	1,600	15 Myrtle Street, Springfield.	East Longmeadow, Hampden, Longmeadow, Wilbraham.
Pope, F. S., . . .	1,700	North Easton, . . .	Easton.
Price, Wilfred H., . . .	1,800	Watertown, . . .	Watertown.
Prior, Charles F., . . .	1,500	Cochituate, . . .	Dover, Sudbury, Wayland.
Putney, Freeman, . . .	2,300	Gloucester, . . .	Gloucester.
Putney, Walter K., . . .	1,000	Needham, . . .	Needham.
Rafter, Augustine L., Ass't,	4,500	Boston, . . .	Boston.
Randall, Charles L., . . .	1,600	Holden, . . .	Holden, Oakham, Paxton, Rut- land.
Record, C. A., . . .	2,200	Abington, . . .	Abington, Bridgewater.
Richards, Clinton J., . . .	1,500	West Newbury, . . .	Boxford, Newbury, Salisbury, Topsfield, West Newbury.
Richardson, Herbert E., . . .	2,000	Greenfield, . . .	Greenfield.
Riley, William E., . . .	1,500	Hinsdale, . . .	Hinsdale, Peru, Savoy, Wind- sor.
Ripley, Mrs. Ellor E., Ass't,	4,500	Boston, . . .	Boston.
Robinson, Albert, . . .	1,800	Peabody, . . .	Peabody.
Robinson, Ernest W., . . .	2,100	Webster, . . .	Dudley, Webster.
Rugg, George, . . .	1,550	38 Somerset Street, Worcester.	Princeton, Sterling, Westmin- ster.
Safford, Adelbert L., . . .	2,200	Beverly, . . .	Beverly.
Sanborn, H. C., . . .	1,600	Danvers, . . .	Danvers.
Sanderson, W. H., . . .	1,600	Chester, . . .	Becket, Chester, Middlefield, Washington.
Scully, John F., . . .	2,500	Arlington, . . .	Arlington.
Sheridan, Bernard M., . . .	3,500	Lawrence, . . .	Lawrence.
Sims, William F., . . .	1,800	Northborough, . . .	Berlin, Northborough, Shrews- bury, Southborough.
Simmons, Charles L., . . .	2,400	Westfield, . . .	Westfield.
Small, Alberto W., . . .	1,600	Baldwinsville, . . .	Hubbardston, Phillipston, Roy- alston, Templeton.
Small, Robert O., . . .	1,925	Grafton, . . .	Grafton, Upton.
Smith, Arthur W., . . .	1,500	Somerset, . . .	Freetown, Somerset, Swansea.
Spaulding, Frank E., . . .	4,000	Newtonville, . . .	Newton.
Sprague, Wilbur B., . . .	1,900	Winchendon, . . .	Ashburnham, Winchendon.
Stearns, Mrs. Cora A., . . .	1,500	Wendell Depot, . . .	Erving, Leverett, Shutesbury, Wendell.
Stevens, Charles E., ¹ . . .	1,500	Stoneham, . . .	Stoneham.
Stone, Melville A., . . .	1,700	Reading, . . .	Merrimac, Reading.
Taylor, Herbert F., . . .	2,000	Norwood, . . .	Norwood.

¹ Three-fifths time.

List of superintendents, alphabetically arranged, with their superintendencies — Concluded.

SUPERINTENDENTS.	Salaries.	Addresses.	Superintendencies.
Thompson, Thomas E., .	\$2,200	Leominster, .	Leominster.
Thompson, Victor V., .	1,600	Hopkinton, .	Ashland, Hopkinton.
Thomson, Andrew S., .	1,600	South Hamilton, .	Essex, Hamilton, Middleton, Wenham.
Tirrell, Edwin S., .	1,400	Nahant, .	Nahant.
Tower, Alfred O., .	1,500	Barre, .	Barre, Hardwick, Petersham.
Tucker, Charles A., ¹ .	1,800	Stockbridge, .	Stockbridge.
Van Ornum, F. B., .	1,500	Cheshire, .	Clarksburg, Hancock, Lanes- borough, New Ashford.
Waldron, H. C., .	1,800	Westborough, .	Westborough.
Ward, W. Scott., .	2,000	Athol, .	Athol.
Webber, Arthur B., .	1,600	Littleton, .	Acton, Littleton, Westford.
West, M. J., .	1,500	Millis, .	Medfield, Millis, Norfolk, West- wood.
Wheeler, F. A., .	1,500	Monson, .	Brimfield, Monson.
Wheeler, U. G., .	2,500	Everett, .	Everett.
Whitcomb, Arthur K., .	3,000	Lowell, .	Lowell.
White, Maurice P., Ass't, .	4,500	Boston, .	Boston.
Whitney, Fairfield, .	1,500	Saugus, .	Saugus.
Whittemore, F. E., .	1,750	South Hadley Falls, .	Granby, South Hadley.
Wiggin, Ralph L., .	1,300	Falmouth, .	Falmouth.
Willard, Edgar L., .	1,600	Newburyport, .	Newburyport.
Williams, F. F., .	1,500	West Stockbridge, .	Alford, Egremont, Richmond, West Stockbridge.
Williams, Loring G., .	1,600	Harwich, .	Chatham, Eastham, Harwich, Orleans.
Willson, Myron J., .	1,650	South Deerfield, .	Conway, Deerfield, Sunderland, Whately.
Wood, Judson I., .	2,100	Gardner, .	Gardner.
(Total, 191.)			

¹ Also principal of high school.

Union superintendencies.

Number.	UNIONS.	When formed.	Valuation of assessed estate, May 1, 1907.	No. of schools, 1906-1907.	EACH TOWN'S SHARE OF SUPERINTENDENT'S —		State aid each town.	Superintendent's salary.	When union superintendent's term ends.	JOINT COMMITTEE.	
					Service.	Salary.				Chairman.	Secretary.
1	Duxbury, Marshfield, Scituate.	1888	\$2,142,747	10	1½	\$250 00	\$416 66	\$1,500 00	June 1,	Dr. Nathaniel K. Noyes, Duxbury.	Clara M. Skeele, Scituate.
2	Hubbardston, Phillipston, Royalston, Templeton.	1889	656,120	9	¾	150 00	250 00	1,600 00	July 1,	S. E. Greenwood, Templeton.	Mrs. Mary R. Chaffin, Phillipston.
3	Ashland, Hopkinton.	1889	1,094,328	10	¾	300 00	500 00	1,600 00	July 1,	G. C. Fisk, Ashland.	Geo. S. Thompson, Hopkinton.
4	Easthampton, Southhampton, Westhampton.	1889	4,980,894	30	12 days.	621 57	131 53	1,600 00	July 1,	Rev. Frans Willer, pro tem, Easthampton.	Charles N. Loud, Westhampton.
5	Barre, Hardwick, Petersham.	1890	1,629,165	13	¾	300 00	500 00	1,500 00	May 1,	Rev. Preston R. Crowell, Petersham.	Charles O. Flagg, Hardwick.
6	Berlin, Northborough, Shrewsbury, Southborough.	1890	546,880	5	¾	107 40	179 00	1,800 00	May 1,	Daniel W. Bemis, Shrewsbury.	Samuel T. Maynard, Shrewsbury.
7	Becket, Chester, Middlefield, Washington.	1890	484,330	7	12½	184 50	307 50	1,600 00	July 1,	James H. Keefe, Chester.	Howard R. Molineaux, Becket.
8	Brimfield, Monson.	1890	482,247	7	¾	225 00	375 00	1,500 00	April 30,	Rev. Samuel Eaton, Brimfield.	Rufus S. Stebbins, Monson.

Union superintendencies—Continued.

Number.	RACE TOWN'S SUPERINTENDENT	Service.	as			Superintendent's salary.	When union superintendency year be- gins.	JOINT COMMITTEE.	
								Chairman.	Secretary.
9	$\frac{1}{2}$ $\frac{3}{4}$ $\frac{3}{4}$		\$150 00 300 00 300 00	\$250 00 500 00 500 00	\$1,500 00	July 1.		Moses C. Goodnow, Princeton.	Mrs. Katherine T. Dutton, Dunstable.
10	2 days. 1 day. 2 days.		300 00 150 00 300 00	500 00 250 00 500 00	1,800 00	April 9.		S. Frederick French, Mansfield.	Dr. Joseph McDonald.
11	$\frac{7}{10}$ $\frac{1}{10}$ $\frac{7}{10}$ $\frac{1}{10}$		375 00 75 00 225 00 75 00	625 00 125 00 325 00 125 00	2,000 00	Sept. 3.		Lucian C. McLoon, Tyngsborough.	Opheelia S. Brown, Tyngsborough.
12	$\frac{1}{2}$ $\frac{1}{2}$		375 00 375 00	625 00 625 00	1,500 00	July 1.		L. Emerson Barnes, North Brookfield.	Anson P. Goodell, Brookfield.
13	$\frac{3}{4}$ $\frac{1}{4}$		562 50 187 50	937 50 312 50	1,800 00	July 1.		Francis M. McGarry, Grafton.	Appleton P. Williams, West Upton.
14	$\frac{3}{4}$ $\frac{3}{4}$		450 00 300 00	750 00 500 00	1,000 00	Aug. 1.		Herbert V. Chaffee, Oxford.	Edward F. Hull, Mil- bury.
15	$\frac{1}{2}$ $\frac{1}{2}$		375 00 375 00	625 00 625 00	2,200 00	Aug. 1.		Richard J. Casey, Bridgewater.	Walter P. Hutchinson, Abington.
16	$\frac{3}{4}$ $\frac{1}{4}$ $\frac{1}{4}$ $\frac{1}{4}$		225 00 300 00 225 00	375 00 500 00 375 00	1,500 00	April 24.		Herbert Newell, Shel- burne Falls.	Jonathan E. Daven- port, Colrain.
17	$\frac{3}{4}$ $\frac{1}{4}$ $\frac{1}{4}$		337 50 75 00 337 50	562 50 125 00 562 50	1,500 00	July 1.		Rev. Milton R. Kerr, Sandwich.	Anna M. Starbuck, (Bourneville), Bourne.

18	East Bridgewater, Raynham, West Bridgewater.	1892 1892 1892	1,733,646 743,946 1,188,741	14 8 10	9 days. 4 days. 7 days.	350 00 150 00 250 00	583 33 250 00 416 67	1,500 00	May 20,	Wm. H. Taylor, East Bridgewater.	Susan B. Dunphe, East Bridgewater.
19	Brewster, ¹ Dennis, Yarmouth.	1903 1892 1892	507,870 1,186,005 2,016,566	4 13 9	$\frac{4}{10}$ $\frac{1}{10}$ $\frac{9}{10}$	259 61 115 39 375 00	432 69 192 31 625 00	1,625 00	July 1,	Edmund W. Eldridge, Yarmouth.	E. Herbert Howes, Dennis.
20	Holland, ² Wales, Warren.	1902 1893 1893	96,354 280,907 1,848,048	1 4 16	$\frac{1}{10}$ $\frac{5}{10}$ $\frac{1}{10}$	37 50 112 50 600 00	62 50 187 50 1,000 00	1,600 00	Aug. 1,	Dr. Chas. A. DeLand, Warren.	Dr. John E. Dalton, Warren.
21	East Longmeadow, Hampden, Longmeadow, Wilbraham.	1893 1893 1893 1893	653,200 375,832 1,133,570 1,044,352	10 6 5 12	$\frac{1}{10}$ $\frac{9}{10}$ $\frac{5}{10}$ $\frac{1}{10}$	227 27 136 36 113 64 272 73	378 79 227 27 189 39 454 55	1,600 00	July 1,	Oliver Louis Wolcott, East Longmeadow.	Dr. H. G. Webber, Wilbraham.
22	Dartmouth, Westport.	1893 1893	3,325,800 1,680,325	21 19	$\frac{1}{2}$ $\frac{1}{2}$	375 00 375 00	625 00 625 00	1,500 00	Sept. 1,	Edward L. Macomber (Central Village), Westport.	George F. Merry, Dart- mouth.
23	Hanover, Hanson, Norwell.	1894 1894 1894	1,423,645 1,253,490 873,069	11 8 7	$\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{2}$	250 00 250 00 250 00	416 67 416 66 416 67	1,650 00	May 1,	Dr. Clarence L. Howes, Hanover.	Mrs. Mary E. Curtis, Norwell.
24	Cheshire, Dalton.	1894 1894	736,843 3,383,042	8 17	$\frac{3}{10}$ $\frac{7}{10}$	225 00 525 00	375 00 875 00	1,500 00	April 10,	George Z. Dean, Cheshire.	Payson E. Little, Dalton.
25	Provincetown, Truro, ³ Wellfleet.	1894 1902 1894	1,900,300 374,460 1,033,135	22 5 5	$\frac{2}{10}$ $\frac{5}{10}$ $\frac{5}{10}$	522 74 113 63 113 63	871 22 189 39 189 39	1,600 00	Sept. 7,	A. T. Williams, Prov- incetown.	Everett I. Nye, Well- fleet.
26	Norton, Plainville, ³ Wrentham.	1894 1905 1894	1,081,275 729,609 1,154,470	12 7 8	$\frac{4}{10}$ $\frac{7}{10}$ $\frac{7}{10}$	300 00 225 00 225 00	500 00 375 00 375 00	1,600 00	May 1,	Elbridge J. Whitaker, Wrentham.	W. C. S. Wood, Nor- ton.
27	Bellingham, Hopedale, Mendon.	1894 1894 1894	814,430 5,165,615 640,330	10 12 6	$\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$	250 00 250 00 250 00	416 66 — 416 66	2,000 00	May 28,	Frank H. Wood, Mendon.	Frank J. Dutcher, Hopedale.
28	Chatham, ¹ Eastham, Harwich, Orleans.	1903 1894 1894 1894	1,103,500 335,500 1,160,837 610,196	10 2 12 4	$\frac{9}{10}$ $\frac{2}{10}$ $\frac{1}{10}$ $\frac{4}{10}$	250 00 55 56 333 33 111 11	416 67 92 60 555 55 185 18	1,600 00	Oct. 1,	Thos. H. Nickerson, Harwich.	George S. Hall, Or- leans.

¹ Added Oct. 17, 1903, by decree of State Board of Education.

² Added in 1902.

³ A part of Wrentham; made a town in 1905.

Union superintendencies — Continued.

Number.	UNIONS.	When formed.	Valuation of assessed estate, May 1, 1907.	No. of schools, 1906-1907.	EACH TOWN'S SHARE OF SUPERINTENDENT'S —		Rate paid each town.	Superintendent's salary.	When union superintendent begins year.	JOINT COMMITTEE.	
					Service.	Salary.				Chairman.	Secretary.
29	Granby, South Hadley.	1895 1895	\$495,405 2,617,023	5 25	$\frac{1}{4}$ $\frac{3}{4}$	\$562 50 187 50	\$937 50 312 50	\$1,750 00	April 1.	Arthur S. Gaylord, South Hadley Falls.	George R. Smith, Granby.
30	Gill, Leyden, ¹ Northfield, Warwick.	1895 1901 1895 1895	445,474 175,579 1,238,920 364,880	6 5 9 4	$\frac{1}{4}$ $\frac{1}{4}$ $\frac{3}{4}$ $\frac{1}{4}$	150 00 150 00 300 00 150 00	250 00 250 00 500 00 250 00	1,625 00	May 7.	L. R. Smith, East Northfield.	Mrs. Nellie M. Wood, Northfield.
31	Bolton, Boylston, Harvard, Shirley.	1895 1895 1895 1895	491,214 478,651 1,300,889 1,046,727	4 4 6 8	$\frac{3}{8}$ $\frac{5}{8}$ $\frac{3}{8}$ $\frac{3}{8}$	160 71 133 93 241 07 214 29	267 86 223 21 401 79 357 14	1,600 00	July 1.	Clifford L. Russell, Harvard.	George L. Wright, Boylston Centre.
32	Chilmark, ² Edgartown, Gay Head, ³ Oak Bluffs, Tisbury, West Tisbury.	1897 1895 1902 1895 1895 1895	278,757 925,510 33,130 1,781,075 1,333,142 516,798	2 5 1 6 6 4	$\frac{3}{40}$ $\frac{4}{40}$ $\frac{1}{40}$ $\frac{5}{40}$ $\frac{5}{40}$ $\frac{3}{40}$	75 00 150 00 37 50 187 50 187 50 112 50	125 00 250 00 62 50 312 50 312 50 187 50	1,600 00	July 1.	William Channing Nevin, Edgartown.	Anson M. Luce, North Tisbury.
33	Georgetown, Groveland, Rowley.	1895 1895 1895	1,009,410 1,163,032 747,971	8 13 8	$\frac{3}{4}$ $\frac{3}{4}$ $\frac{1}{4}$	300 00 300 00 150 00	500 00 500 00 250 00	1,500 00	Sept. 1.	Albert L. Wales, 16 King Street, Groveland.	Frank E. Richardson, Rowley.
34	Carlisle, Chelmsford, Dunstable.	1896 1896 1896	416,193 3,298,410 295,100	3 26 3	$\frac{3}{40}$ $\frac{15}{40}$ $\frac{3}{40}$	112 50 562 50 75 00	187 50 937 50 125 00	1,500 00	Aug. 1.	Herbert E. Ellis, Chelmsford.	Arthur N. Hall, Dunstable.
35	Holliston, Medway, Sherborn.	1896 1896 1896	1,566,329 1,346,855 1,345,286	13 12 7	2 days. 2 days. 1 day.	300 00 300 00 150 00	500 00 500 00 250 00	1,500 00	Sept. 1.	Chas. M. Smith, West Medway.	Dr. Samuel H. Butler, Medway.
36	Acushnet, Fairhaven, Mattapoisett.	1897 1897 1897	678,490 2,949,268 1,570,395	7 21 7	$\frac{1}{4}$ $\frac{4}{4}$ $\frac{1}{4}$	125 00 500 00 125 00	208 33 883 34 208 33	2,100 00	July 1.	Daniel W. Kendrick, Fairhaven.	Mrs. Mary W. Wood, Mattapoisett.

37	Charlemont, Florida, Hawley, Heath, ¹ Monroe, Rowe, .	1897 1897 1897 1902 1897 1897	419,455 171,896 154,953 163,008 146,915 175,107	10 5 6 4 4 6	$\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$ $\frac{1}{10}$	234 28 93 75 140 62 70 32 93 75 117 18	390 63 156 25 234 37 117 20 156 25 195 30	1,600 00	April 26,	Warren W. Smith, East Charlemont.	Frank B. Burrington, Heath.
38	Ashby, . Lunenburg, ⁴ Townsend, .	1897 1905 1897	506,727 1,026,856 1,142,378	4 8 9	$\frac{7}{10}$ $\frac{7}{10}$ $\frac{7}{10}$	150 00 225 00 375 00	250 00 375 00 625 00	1,700 00	July 1,	J. W. Eastman, Towns- end.	Rev. A. T. Kempton, Lunenburg.
39	Dover, . Sudbury, Wayland, .	1898 1898 1898	1,176,136 1,301,160 1,964,134	6 7 11	$\frac{7}{10}$ $\frac{7}{10}$ $\frac{7}{10}$	150 00 225 00 375 00	250 00 375 00 625 00	1,500 00	Sept. 1,	Richard H. Bond, Needham	Mrs. Evora A. Wotton, Dover.
40	New Braintree, Sturbridge, West Brookfield, .	1898 1898 1898	394,590 987,458 984,630	4 12 7	$\frac{7}{10}$ $\frac{7}{10}$ $\frac{7}{10}$	225 00 300 00 225 00	375 00 500 00 375 00	1,500 00	May 20,	George K. Tufts, New Braintree.	Sumner H. Reed, West Brookfield.
41	Ayer, . West Boylston, .	1898 1898	2,008,215 733,732	10 7	$\frac{1}{2}$ $\frac{1}{2}$	375 00 375 00	625 00 625 00	1,650 00	July 1,	Albert W. Hinds, West Boylston.	George H. Brown, Ayer.
42	Acton, . Littleton, Westford, .	1898 1898 1898	1,798,545 1,016,858 1,676,310	11 7 15	$\frac{7}{10}$ $\frac{7}{10}$ $\frac{7}{10}$	225 00 150 00 375 00	375 00 250 00 625 00	1,600 00	Sept. 1,	Dr. J. W. Godfrey, Littleton.	Chas. J. Williams, Acton.
43	Freetown, Somerset, ³ Swansea, .	1900 1902 1900	842,320 1,221,648 1,245,697	8 13 12	$\frac{1}{2}$ $\frac{1}{2}$ $\frac{1}{2}$	250 00 250 00 250 00	416 67 416 67 416 66	1,500 00	May 1,	George W. Fisk, Swan- sea.	Viola N. Burns, Free- town.
44	Marion, . Wareham, .	1900 1900	2,541,610 3,642,522	6 21	$\frac{3}{4}$ $\frac{3}{4}$	300 00 450 00	500 00 750 00	1,750 00	June 1,	John Huxtable, Ware- ham.	A. C. Vose, Marion.
45	Holden, Oakham, Paxton, Rutland, .	1900 1900 1900 1900	1,435,508 344,014 350,304 712,496	16 5 3 6	$\frac{1}{10}$ $\frac{2}{10}$ $\frac{2}{10}$ $\frac{5}{10}$	375 00 112 50 75 00 187 50	625 00 187 50 125 00 312 50	1,600 00	Aug. 1,	Jesse Allen, Oakham,	Addie M. Holden, Holden.
46	Ashfield, Cummington, . Goshen, Plainfield, .	1900 1900 1900 1900	597,217 316,130 175,360 175,092	11 8 4 5	$\frac{1}{10}$ $\frac{5}{10}$ $\frac{4}{10}$ $\frac{5}{10}$	294 64 214 29 107 14 133 93	491 07 357 15 178 57 223 21	1,500 00	Sept. 1,	Frank C. Wlethauper, West Cummington.	George B. Church, Shelburne Falls.

¹ Added in 1901. ² Added in 1897. ³ Added in 1902. ⁴ Added May 16, 1905, by decree of State Board of Education.

56	Hinsdale, Peru, Savoy, Windsor,	1901 1901 1901 1901	584,668 129,833 183,145 284,740	9 4 7 7	3½ days. 1½ days. 9½ days. 2½ days.	258 62 129 31 181 03 181 04	431 04 215 51 301 72 301 73	1,500 00	May	7,	D. A. Cady, Windsor,	Thomas F. Barker, Hinsdale.
57	Halifax, Kingston, Pembroke, Plympton,	1901 1901 1901 1901	469,237 1,669,180 950,845 326,773	3 11 7 3	¾s ¾s ¾s ¾s	100 00 300 00 250 00 100 00	166 67 500 00 416 66 166 67	1,650 00	July	1,	John M. Monroe, Bry- antville.	John W. Cobb, Kings- ton.
58	Clarksburg, Hancock, Lanesborough, New Ashford,	1902 1902 1902 1902	263,192 288,770 497,236 51,927	6 6 5 1	¾s ¾s ¾s ¾s	250 00 250 00 208 33 41 67	416 67 416 67 347 22 69 44	1,500 00	Sept.	1,	Daniel Shepardson, Hancock.	F. C. Downing, Lanes- borough.
59	Dana, Greenwich, New Salem, Prescott,	1902 1902 1902 1902	355,899 252,442 336,840 179,404	5 2 7 5	¾s ¾s ¾s ¾s	197 37 78 94 276 32 197 37	328 95 131 57 460 53 328 95	1,500 00	July	1,	John H. Johnson, Dana.	Mrs. Nellie M. Brown, Dana.
60	Auburn, Sutton,	1902 1902	1,073,500 1,212,363	10 16	¾s ¾s	270 00 480 00	450 00 800 00	1,500 00	July	1,	W. T. Duvall, Auburn,	James W. Stockwell, Sutton.
61	Essex, Hamilton, Middleton, ¹ Wenham,	1902 1902 1905 1902	1,077,158 3,445,280 757,970 2,280,425	8 9 4 6	¾s ¾s ¾s ¾s	225 00 225 00 150 00 150 00	375 00 375 00 250 00 250 00	1,600 00	July	1,	George K. Knowlton, Hamilton.	Everett A. Smith, Hamilton.
62	Carver, Lakeville, Rochester,	1902 1902 1902	1,319,350 663,088 623,905	10 6 6	¾s ¾s ¾s	300 00 225 00 225 00	500 00 375 00 375 00	1,500 00	May	1,	Mrs. Annie J. Peirce, Lakeville.	Leavitt C. Caswell, Lakeville.
63	Medfield, ² Millis, Norfolk, Westwood,	1908 1902 1902 1902	1,546,108 753,625 777,944 2,159,112	7 7 5 6	¼ ¼ ¼ ¼	187 50 187 50 187 50 187 50	312 50 312 50 312 50 312 50	1,600 00	Sept.	1,	George C. Lee, Jr., 44 State Street, Boston.	Edward W. Mann, Norfolk.
64	Mt. Washington, New Marlborough, Sheffield,	1902 1902 1902	83,193 675,485 919,610	2 11 13	¾s 1½s 1½s	75 00 285 00 390 00	125 00 475 00 650 00	1,500 00	April	25,	E. L. Boardman, Shef- field.	Z. H. Cande, Sheffield.
65	Chesterfield, Williamsburg, Worthington,	1902 1902 1902	304,590 947,719 307,406	6 14 6	¼ ¼ ¼	187 50 375 00 187 50	312 50 625 00 312 50	1,500 00	Sept.	1,	T. K. Utley, Chester- field.	Mrs. Martha S. Bisbee, Williamsburg.

¹ Added May 16, 1905, by decree of State Board of Education.

² Added in 1908.

Union superintendencies — Concluded.

Number.	UNIONS.	When formed.	Valuation of assessed estate, May 1, 1907.	No. of schools, 1906-1907.	EACH TOWN'S SHARE OF SUPERINTENDENT'S —		State aid to each town.	Superintendent's salary.	When union superintendent begins duty year.	JOINT COMMITTEE.	
					Service.	Salary.				Chairman.	Secretary.
66	Alford, . Egremont, . Richmond, . West Stockbridge, .	1902 1902 1902 1902	\$168,255 461,994 349,946 388,504	3 4 6 7	$\frac{3}{8}$ $\frac{4}{8}$ $\frac{7}{8}$ $\frac{8}{8}$	\$102 27 136 36 238 64 272 73	\$170 45 227 27 397 73 454 55	\$1,500 00	July 1,	J. B. Briggs (Egremont), Gt. Barrington, R. F. D. No. 3.	Henry M. Rowden, South Egremont.
67	Berkley, . Dighton, . Rehoboth, .	1902 1902 1902	409,711 1,018,442 786,151	7 12 15	$\frac{4}{10}$ $\frac{7}{10}$ $\frac{9}{10}$	150 00 262 50 337 50	250 00 437 50 562 50	1,500 00	July 1,	Edwin H. Allen, Berkley.	Christopher C. Viall, Rehoboth.
68	Charlton, . Leicester, .	1902 1902	1,264,645 2,282,556	15 20	$\frac{1}{4}$ $\frac{1}{2}$	375 00 375 00	625 00 625 00	1,500 00	Sept. 1,	Rev. Edgar W. Preble, Charlton.	J. W. Smith, Leicester.
69	Boxborough, . Maynard, . Stow, .	1902 1902 1902	252,115 3,732,355 881,126	4 20 6	$\frac{7}{10}$ $\frac{5}{10}$ $\frac{8}{10}$	150 00 375 00 225 00	250 00 — 375 00	1,500 00	Sept. 1,	Daniel Goodenow, Maynard.	Rowland P. Harriman, Maynard.
70	Conway, . Deerfield, . Sunderland, . Whately, .	1903 1903 1903 1903	662,984 1,590,802 491,755 434,841	12 14 4 5	32 per cent. 39 per cent. 17 per cent. 12 per cent.	242 78 292 28 128 02 86 92	404 63 487 13 213 37 144 87	1,600 00	June 1,	C. G. Trow, Sunderland.	Edward A. Rice, South Deerfield.
71	Agawam, . Ludlow, .	1903 1903	1,684,582 3,472,474	14 23	$\frac{15}{100}$ $\frac{23}{100}$	296 05 453 95	493 42 756 58	1,600 00	July 1,	Edward E. Chapman, Ludlow.	Frederick A. Worthington, Agawam.
72	Granville, . Sandisfield, . Southwick, . Tolland, .	1903 1903 1903 1903	417,992 331,345 651,465 172,709	8 8 10 1	30 per cent. 25 per cent. 35 per cent. 10 per cent.	225 00 187 50 262 50 75 00	375 00 312 50 437 50 125 00	1,500 00	July 1,	Mrs. Alice M. Carpenter, Granville.	Mrs. Emma L. Stow, Granville.
73	Dudley, . Webster, .	1903 1903	1,557,296 6,410,054	15 23	$\frac{1}{4}$ $\frac{3}{8}$	250 00 500 00	416 67 —	2,100 00	Aug. 1,	Spaulding Bartlett, Webster.	R. A. Dunning, Webster.
74	Billerica, . Pepperell, .	1904 1904	2,245,908 2,234,747	16 18	$\frac{1}{4}$ $\frac{1}{2}$	375 00 375 00	625 00 625 00	1,500 00	Sept. 1,	Dr. Leicester R. Quaspepperell.	Joseph P. Meany, North Billerica.

THE WORK OF THE AGENTS.

The annual reports of the agents of the Board will be found in the Appendix. The report of Mr. Prince presents facts descriptive of the most recent tendency in the organization and administration of the schools. Mr. MacDonald deals with the difficult problems connected with high school administration. Mr. Warren discusses industrial education as related to the public schools. Mr. Burnham treats of the work in industrial drawing and the manual arts.

In the Appendix will also be found an outline of mathematical work suitable to be used in classes of the ninth grade. It shows in a most suggestive way how the school work in arithmetic and elementary geometry may be connected with and prepare for shop work in the practical arts. The outline was worked out by Mr. Brenelle Hunt, principal of the model school connected with the State Normal School at Bridgewater.

A paper on "Industrial Education and the Public Schools," read by the secretary of the Board at a meeting of the Massachusetts State Teachers' Association, in Boston, November 27, is also included.

All the papers contained in the Appendix are commended to the attention of the members of the Board and of the Legislature.

Respectfully submitted,

GEORGE H. MARTIN,

Secretary of the Board.

FINANCIAL STATEMENTS.

THE MASSACHUSETTS SCHOOL FUND.

The following statement shows the condition of the Massachusetts school fund:—

Amount of the fund Jan. 1, 1908,	\$5,000,000 00
Amount of fund Dec. 31, 1908,	5,000,000 00
Gross income for 1908,	\$233,366 78
Paid for accrued interest on securities purchased, . . .	3,927 05
Net income,	\$229,439 73
Paid to towns in the distribution of Jan. 25, 1909, . . .	\$229,439 73

The following table shows the amount of the principal of the Massachusetts school fund and the annual income from 1895 to 1908:—

YEAR.	Principal.	Income.
1895,	\$3,870,548 14	\$172,729 65
1896,	3,970,548 14	175,165 64
1897,	4,070,548 14	189,808 71
1898,	4,170,548 14	204,612 61
1899,	4,270,548 14	208,462 61
1900,	4,370,548 14	213,066 18
1901,	4,470,548 14	366,656 51
1902,	4,570,548 14	220,731 77
1903,	4,670,548 14	197,379 93
1904,	4,780,110 66	214,224 13
1905,	4,880,110 66	219,379 32
1906,	4,980,110 66	224,468 31
1907,	5,000,000 00	228,621 22
1908,	5,000,000 00	229,439 73

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION.

DR.

APPROPRIATIONS FOR SUPPORT OF STATE NORMAL SCHOOLS.

CR.

1907-08.		1907-08.		
Expended for Bridgewater Normal School,	\$52,991 00		(chapter 105, Acts of 1908),	\$841,229 00
Expended for Fitchburg Normal School,	42,563 33		(chapter 257, Acts of 1908),	2,500 00
Expended for Framingham Normal School,	38,443 00		Received from the city of Fitchburg,	11,673 33
Expended for Hyannis Normal School,	22,869 89		Deficit,	9 73
Expended for Lowell Normal School,	31,998 52			
Expended for North Adams Normal School,	34,978 73			
Expended for Salem Normal School,	36,799 22			
Expended for Westfield Normal School,	32,370 00			
Expended for Worcester Normal School,	26,523 15			
Expended for Normal Art School,	34,212 52			
	\$853,749 36			
Balance unexpended,	1,662 70	\$855,412 06		\$855,412 06
Bridgewater Normal School:—			Appropriation (chapter 105, Acts of 1908),	\$52,991 00
Salaries,	\$27,937 60			
Model school,	7,647 33			
Wages and labor,	6,760 00			

Buildings and grounds,	8,540 00				
School supplies, . . .	1,866 07				
Miscellaneous, . . .	240 00			\$52,991 00	\$52,991 00
Fitchburg Normal School:—					
Salaries, . . .	\$15,649 89				
	14,316 31				\$80,890 00
	4,951 08				11,673 88
	4,807 00				
	1,913 86				
	500 00				
	425 69				
				\$42,563 33	\$42,563 33
Framingham Normal School:—					
Salaries, . . .	\$17,899 96				
Model school, . . .	5,897 73				
	4,721 00				\$38,443 00
	8,338 77				
	1,189 55				
	81 40				
	369 59				
				\$38,443 00	\$38,443 00
Hyannis Normal School:—					
Salaries, . . .	\$9,787 85				
Model school, . . .	2,796 22				
Wages and labor, . . .	2 269 18				\$24,370 00
Buildings and grounds, . . .	4 539 69				
Amount carried forward, . . .	\$19,332 44				\$24,370 00

[illegible]

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION—CONTINUED.

DR. APPROPRIATIONS FOR SUPPORT OF STATE NORMAL SCHOOLS—*Concluded.* CR.

1908.	1909.	1908.	(chapter 105, Acts of	\$34,226 00
Normal Art School:—				
Salaries,	\$25,625 48			
Wages and labor,	3,175 23			
Buildings and grounds,	3,634 46			
School supplies,	336 58			
Lectures, etc.,	875 00			
Miscellaneous,	270 77			
Model school,	298 00			
Balance unexpended,	13 48			
	\$34,226 00			\$34,226 00

APPROPRIATION FOR SALARIES.

1908.	1909.	1908.	Appropriation (chapter 106, Acts of 1908),	\$17,360 00
George H. Martin, secretary,	\$4,500 00			
John T. Prince, agent,	2,500 00			
J. W.	2,500 00			
J. E.	2,500 00			
Frederic L. Burnham,	2,500 00			
A. C. Blake, chief clerk,	1,200 00			
E. E. Elwell, clerk,	1,000 00			
George H. Varney,	660 00			
	\$17,360 00			\$17,360 00

APPROPRIATION FOR TRAVELLING EXPENSES OF AGENTS.

1907-08.			1907-08.	Appropriation (chapter 105, Acts of 1908),	\$2,000 00
	Paid John T. Prince,	\$306 81			
	J. W. MacDonald,	457 08			
	J. E. Warren,	524 48			
	F. L. Burnham,	384 68			
	Balance unexpended,	327 25			
					\$2,000 00

APPROPRIATION FOR AID TO NORMAL SCHOOL PUPILS

1907-08.			1907-08.	Appropriation (chapter 105, Acts of 1908),	\$4,000 00
	Amounts paid:—				
	Bridgewater Normal School	\$661 30			
		129 03			
		258 06			
		112 90			
		129 08			
		112 90			
		564 52			
	Worcester Normal School,	32 26			
	Balance unexpended,	2,000 00			
					\$4,000 00

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED

Dr. APPROPRIATION FOR TEACHERS' INSTITUTES. Cr.

1904.	1904.	1904.	(chapter 105, Acts of)	\$2,000 00
Paid for expenses and instructors for institutes at Aver, Charle- mont, (.)				
lin, Gr				
Hudson				
Lune				
North Andover, Orange, Pitts- field, Scituate, Sheffield, Shel- burne Falls, Southwick, Stough- ton, Ware,				
Balance unexpended,	\$1,844 99			
	155 01			
	\$2,000 00			\$2,000 00

APPROPRIATION FOR INCIDENTAL EXPENSES.

1904.	1904.	1904.	Appropriation (chapter 105, Acts of 1906),	\$2,000 00
Amounts paid for:—				
Printing,	\$574 16			
Stationery,	368 61			
.	360 66			
.	235 00			
.	61 00			
books and periodicals,	57 85			
Telephone,	42 75			
Newspaper clippings,	37 24			
Advertising,	24 80			

Binding,	20 75			
Balance unexpended,	217 18			
		\$2,000 00		\$2,000 00

APPROPRIATION FOR EXPENSES OF MEMBERS OF THE BOARD.

1908.	1909.	(chapter 105, Acts of	\$1,000 00
June 3, Amounts paid: —			
J. G. Thompson, visits to normal schools,	\$269 05		
Kate G. Wells,	49 69		
Mrs Ella L. Cabot,	11 90		
A. E. Winship,	10 56		
C. Q. Richmond,	83 22		
Carroll D. Wright,	7 55		
Kate G. Wells,	20 41		
George I. Aldrich,	63 35		
J. D. Miller,	32 15		
Balance unexpended,	452 12		\$1,000 00

APPROPRIATION FOR EDUCATION OF ADULT BLIND.

1908.	1909.	Appropriation (chapter 105, Acts of 1908),	\$5,000 00
Paid for teachers and their ex-			
penses,	\$4,957 29		
Balance unexpended,	42 71		\$5,000 00

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION — CONTINUED.

Dr. Cr.
 APPROPRIATION FOR REGISTERS AND CENSUS BLANKS.

1903.	1904.	1905.	1906.	1907.	1908.
	Expended for printing, . . .	\$1,026 98			(chapter 105, Acts of
	Expressage and postage, . . .	159 13			. . . . .
	Balance unexpended, . . .	13 94			. . . . .
			\$1,200 00		\$1,200 00
					\$1,200 00

APPROPRIATION FOR MEDICAL INSPECTION.

1903.	1904.	1905.	1906.	1907.	1908.
	Expressage,	\$80 48			Appropriation (chapter 105, Acts of
	Printing,	581 85			1906),
	Balance unexpended, . . .	187 67			. . . . .
			\$800 00		\$800 00
					\$800 00

APPROPRIATION FOR EDUCATION OF DEAF CHILDREN.

1903.	1904.	1905.	1906.	1907.	1908.
Jan. 8,	Amounts paid as follows: —				Appropriation (chapter 105, Acts of
	American School:				1906),
	52 pupils, quarter commencing				Deficiency,
	Dec 1, 1907,	\$3,312 50			. . . . .
Feb. 5,	Boston School:				
	108 pupils, half year ending				
	Jan 31, 1908,	12,527 82			
10,	Horace Mann School:				
	Transportation Oct. 15, 1907,				
	to Jan 15, 1908,	1,125 60			
					\$94,000 00
					8,201 80

13,	Sarah Fuller Home: 11 pupils, quarter ending April 1, 1908,	671 97		
April 4,	11 pupils quarter ending Jan. 1, 1908,	675 00		
7,	Sarah Fuller Home: Classes in defective speech. . .	174 50		
16,	Horace Mann School: 146 pupils, Feb. 1 to July 1, 1908,	11,099 67		
17,	Clarke School: 106 pupils, quarter ending July 1, 1908,	7,875 00		
	American School: 51 pupils quarter commencing Jan. 1, 1908,	3,250 00		
May 5,	Horace Mann School: Transportation Jan 15 to April 15, 1908,	922 87		
9,	Clarke School: 107 pupils, quarter beginning Jan. 1, 1908,	7,875 00		
June 19,	Boston School: 105 pupils, half year ending June 17, 1908,	12,825 95		
July 2,	American School: 51 pupils, quarter beginning June 1, 1908,	3,187 50		
	<i>Amount carried forward, . . .</i>	\$65,523 98	<i>Amount carried forward, . . .</i>	\$97,201 80

FINANCIAL STATEMENT OF THE BOARD OF EDUCATION -- CONCLUDED.

Dr.	1908.	Amount brought forward, . . .	1908.	Amount brought forward, . . .	Cr.
July 6,		Sarah Fuller Home: . . .	\$65,523 38		\$97,201 80
11,		11 pupils, quarter ending July . . .	675 00		
15,		ending Oct . . .	7,875 00		
Oct. 8,		Clothing bill to July 1, 1908, . . .	331 05		
20,		Sarah Fuller Home: . . .			
		14 pupils, quarter ending Oct . . .	503 10		
		1, 1908, . . .			
		American School: . . .			
		45 pupils, quarter commencing . . .			
		Sept. 1, 1908, . . .	2,812 50		
Nov. 2,		Clarke School: . . .			
		107 pupils, quarter commencing . . .			
		Oct. 1, 1908, . . .	7,922 87		
6,		Horace Mann School: . . .			
		Transportation, May 9 to Oct . . .			
		15, 1908, . . .	505 57		
12,		Horace Mann School: . . .			
		149 pupils, Sept 1, 1908, to Feb. . .			
		1, 1909, . . .	11,158 83		
				\$97,201 80	\$97,201 80

C. B. TILLINGHAST, Treasurer.

APPENDICES.

APPENDIX A.

**REPORT OF JOHN T. PRINCE,
AGENT OF THE BOARD.**

SCHOOL ORGANIZATION AND SUPERVISION, KINDERGARTENS, SUB-PRIMARY CLASSES, PRIMARY AND GRAMMAR SCHOOLS, POWERS AND DUTIES OF SCHOOL SUPERINTENDENTS, CONVEYANCE OF CHILDREN TO SCHOOL, MENTALLY DEFECTIVE CHILDREN, BLIND AND DEAF CHILDREN, DELINQUENT CHILDREN.

REPORT.

To the Board of Education.

During the year just ended my time has been given mainly to the inspection of schools with superintendents; to the inspection of special schools for the deaf and for the blind; to attendance upon teachers' institutes and other educational meetings; and to investigations of complaints to the Board, mainly relating to the conveyance of children to school.

SCHOOL ORGANIZATION AND SUPERVISION.

In a special report nine years ago I presented certain statistics and conclusions relating to the organization and supervision of the schools. At that time the formation of superintendency unions was voluntary, but it was made compulsory two or three years later. As some marked changes have appeared since that report was issued, it seems fitting to call attention to some conditions of administration which most affect the schools. The conclusions reached are based partly upon the answers to questions recently sent out to superintendents and partly upon the results of personal observation.

KINDERGARTENS.

There are at present 38 cities and towns in which public kindergartens are kept. The number of kindergartens reported is 309, employing 540 teachers. These numbers are relatively very small, much smaller than they should be, and yet the increase has been very steady from the time of their beginning in Boston more than twenty years ago. The first statistics relating to kindergartens in the State at large were published ten years ago. At that time the number of kindergarten teachers was 372, with 12,550 pupils. The number of pupils reported this year is 17,257. The minimum age at

which children are admitted into these schools ranges from three to five years, and the course pursued is from one to two years. In most of the places having kindergartens the age of admission to the primary school is five years, only 5 places reporting five and a half and six years as the age limit of the kindergarten course. It may be supposed, therefore, that most of the kindergarten children reported are under five years of age, a large proportion of them being between four and five. Even with this limitation, the number of kindergarten children is but a small percentage of the whole number of children of the age mentioned. It is safe to say that in towns where kindergartens are established more than three-fourths of the children of kindergarten age do not attend. But the record of attendance in kindergartens is no indication of their worth, or of the popular interest in them. If they were as freely offered to the public as the primary schools are, the attendance would doubtless be greatly increased, especially in crowded parts of cities, where they are most needed. No doubt many cities and towns are deterred from opening and carrying on kindergartens by reason of the large expense involved. But even if the privileges of the kindergarten were freely offered, it is a question whether there should not be a readjustment of both kindergarten and primary school courses. To many parents the age of three seems too young for children to leave the homes, and to many also the exercises of the kindergarten do not appear to be well adapted to children over five. Again, there is a well-grounded objection to having children begin the formal work of the primary school as early as five. Some of these objections might be met by limiting the kindergarten course to one year, — from four to five, — and by establishing a connecting class for children from five to six, known as the sub-primary class.

SUB-PRIMARY CLASSES.

In a special report upon a course of studies for elementary schools, made to the Board in 1897, I recommended the establishment of connecting classes between the kindergarten or home and the elementary school, these classes to be known as "sub-primary classes." I proposed that the course pursued in

these classes should consist of an extension or modification of the manual and observational work of the kindergarten, supplemented by some of the nature work and drawing now pursued in our best primary schools and by a little reading and writing and number work. I explained that the proposed course should take the place of the course generally pursued in the first primary grade, and that the age of admission should be five years. Two years later I again urged the adoption of such a course, and gave among other reasons the following:—

In view of all that has been said by experienced teachers regarding the advisability of supplementing the work of the kindergarten by less formal work than is usually required in a primary school, it would seem unnecessary to plead for the introduction of the proposed class. Every primary school teacher realizes that the change is very great from the comparatively unrestrained freedom of the kindergarten, with its dozen or fifteen children, to the school where restrictions are made necessary by the large number of children and by the character of the work required. "Connecting classes" between the kindergarten and the primary school have been formed in several places, and they have invariably been found to be of great use in wisely leading the children into good school habits. Frequently the class exercises have been such as to permit pupils to omit a portion of the first-grade primary work.

But if the sub-primary class is needed for those children who have had the benefits of the kindergarten, much more is such a class needed for children who have not had the advantage of the better training. The change from the home to the school is even greater than that from the kindergarten to the school, and therefore needs the bridge that the proposed class offers. Most people can recall the ordeal through which they passed during the first few weeks of school life. Perhaps the modern school has made the ordeal less trying than it used to be; but we can scarcely realize how great, under the best conditions, the gap is between the freedom of the home and the constraints of the school-room, where forty or fifty children have to be controlled by a single teacher.

My observations during the ten years that have elapsed since the above was written have confirmed me in the advisability of the proposed change. Increased requirements are making it more and more difficult for children in the lowest grades to do the work prescribed, and at the same time to acquire proficiency in drawing, singing and nature study, which are

now demanded in our best primary schools. There are at present 16 towns in which sub-primary classes have been formed for children five years old, the work of the grades being begun in most cases one year later. Practice varies considerably in these towns, but in general it may be said that the work of sub-primary classes includes some of the occupations and games of the kindergarten, with very little formal work in reading and writing. Of course the plans are made to fit conditions, as far as possible. The following outline represents what is attempted in a sub-primary class for children of foreign parentage; it is taken from the Sutton course: —

The first work of these classes is the teaching of the names of playthings, objects in and about the schoolroom, clothing, names of portions of the body, and the meaning of the usual directions given by the teacher in governing the school.

Kindergarten games and songs are used; playthings from home, pictures and kindergarten material, such as sewing cards, paper for cutting and folding, cutting out of pictures from old magazines, pasting, and so forth, are used as aids in giving an understanding of spoken English.

Regular class periods are used for drills. The children are required to repeat everything said to them, or else to do what they are told to do, and then repeat the direction or tell what has been done. Later on, the children give directions for doing things.

As early as the month of January some of the children are given lessons in reading from the board. They vary greatly in the rapidity with which they gain an understanding of English, and also in the gaining of ability to express themselves. Some children of eight and nine find it a most difficult thing to express themselves, the linguistic nature being very sluggish. Some of the children make the advanced division of the grade during the year, and so are passed on to the second grade in June.

A little work in the line of writing and drawing is given to the more advanced class. No number work, except that which naturally comes in the conversation lessons, is given.

PRIMARY AND GRAMMAR SCHOOLS.

Length of Course. — For many years it was an almost universal custom in Massachusetts and other New England States to permit children to enter ungraded and primary schools at the age of five years, and to continue the course nine years up to

the high school. In other countries and in other parts of this country the custom has been to permit children to begin the work of the regular elementary school at six years of age, and to continue the elementary course eight years. Lately, led by the example of Boston, there has been a movement here in the direction of shortening the course below the high school to eight years, at the same time keeping the age of entrance five years, as before. Out of 329 cities and towns reporting, 119 either have an eight years' course or are working toward such a course. All the schools of these 329 places, except 22, admit beginners at five years of age. Fifteen admit them at six, 6 at five and a half and 2 at four. Thus it is that we find the custom growing here of attempting to force upon children from five to thirteen years of age the same work that is done elsewhere from six to fourteen years of age, and this in spite of the fact that the work required of elementary schools has in many places considerably increased.

There are two good reasons for not favoring an eight years' course to be begun with children five years of age. In the first place, such a plan could not be carried out thoroughly without over-taxing the pupils. This would be especially true if the present length of school day is maintained, and if, as is likely, more industrial work is demanded. In the second place, the formal work generally required in reading, writing and arithmetic is entirely too difficult for children of five, and the transition at that age too sudden from the freedom of the home to the formal work of the school.

The claim has been made that a saving of time is effected by changing the length of the course from nine years to eight. The claim can be substantiated only on the supposition that time is wasted, or that some of the subjects are needless in the longer course. If the time of pupils in a given course is properly employed and the subjects are what they should be, no shortening of that course can effect a saving of time without some loss. The same may be said of a saving of expense. It has been gravely asserted that there would be an actual saving of expense by one eighth if the course were shortened to that extent, — an assertion which would be true only

on the supposition that there is needless expense in the longer course, or else that the shortened course sends the children out earlier than they otherwise would go. The truth is, one of two things is likely to happen in schools requiring work to be done in eight years which in other places requires nine years to accomplish: either the pupils are "kept back" somewhere along the course for a repetition of work poorly done, or else some of the required work is left undone. That school authorities prefer the former alternative is shown by the fact that in many places pupils graduating from the nine years' course are about the same average age as those graduating from the eight years' course.

Reports recently received show that the average age of pupils graduating from eight-year courses in the cities and large towns was fourteen years, four months. The average age reported of pupils graduating from nine-year courses in places of corresponding size was fourteen years, five months. Quite a number of places having the shorter course reported the average age of graduates to be greater than the average age of graduates of the longer course. All this, if it means anything, means that real saving is brought about only by the employment of good teachers. If the division line between the grammar school and high school remains as it is, an eight-year primary and grammar course, beginning with children six years of age, seems fair and reasonable. Preceding this course there could be kindergarten or sub-primary classes corresponding to the infant schools of England and France.

Admission of Beginners. — Custom varies greatly in respect to the times of year at which beginners are permitted to enter school, although the returns show that in at least three fourths of the towns permission is limited to September or to the first two weeks of that month. Of the other towns the most seem to favor fall or spring, or September and one other month; then follow in order "September and October" and "any time" or "beginning of each term."

Circumstances, of course, determine this matter; but there appears to be no good reason, except the convenience of parents, for not limiting the entrance period to a single month of the year. In a few places the time for entering the primary school de-

depends upon the readiness of the children to do the work required, rather than upon the age. This plan applies, of course, to places which have kindergartens or sub-primary classes.

Promotions.—Reports from superintendents show that in a large proportion of towns all promotions are made by the superintendent, with the advice of the principal or teacher. A number of towns report that matters of promotions are left largely to individual teachers, the more doubtful cases being left to the principal or superintendent. In either plan the superintendent has, as he should have, the full control of the placing of pupils. In only 6 towns does the committee or a member of it appear to have anything to do with promotions. In all such cases the recommendations of the teacher or superintendent are acted upon by one or more members of the committee. In one city the superintendent is given no authority, not even advisory, in matters of promotion, the teachers alone sending along and keeping back whom they please. Their opinion is said to be based upon the daily work of pupils and the results of examinations.

From statements contained in the returns and from personal observation, I judge that written examinations given by superintendents or teachers are in some towns the controlling factor in determining the grade of pupils. In a few places the daily rating of the teacher, with averages of 70 per cent. and 80 per cent., appears to be the sole guide.

In my last report I spoke quite freely of the dangers of having promotions depend upon the results of written examinations, and of the folly of daily marks for any cause. I shall not, therefore, dwell upon the matter here more than to refer to the unfairness of determining the grade in which pupils shall work in this way. No two teachers agree in their estimate of the value of a pupil's work, either in recitation or in examination. Such is the difference of teachers in giving an examination and in marking the answers that in a given examination they might vary in the marks they would give to the same pupils from 10 to 30 per cent. If this is true, it is manifestly unfair to the pupils to let their promotion or non-promotion depend upon the teachers' marks alone or upon the results of examinations. Some teachers and superintendents

seem to think that absolute justice in promotion requires a rigid conformity to some standard of attainment, — a standard measured by per cent. marks. There are fewer offenders of this kind now than formerly, and yet they are sometimes found. One school which I recently visited was a sad example of this kind. The pupils of the school were in two divisions, with a row of empty seats between them to make the difference of attainment more manifest. One division consisted of pupils who had passed the 75 per cent. mark in their examinations, and the other of those who had fallen below that mark. Upon inquiry I learned that this was a test for promotion, and further, that a mark of $74\frac{1}{2}$ per cent. would oblige a pupil to go over the work again. This was a ninth grade, consisting of pupils who were presumably candidates for the high school, and some of them of both divisions were apparently over fifteen years of age. I am glad to believe that such a method of determining the pupils' ability to do the subsequent work is now quite exceptional.

There appears to be in some places a method of promotion from the grammar school to the high quite different from the method pursued in the grades. In something like 60 towns of the Commonwealth graduation from the grammar school does not permit pupils to enter the high school. These places include some of the smaller towns which have no high school, the pupils having to pass an examination before they can enter a high school in another town. A fairer method would be to follow the course pursued in some towns, of admitting all pupils on certificate signed by the superintendent and teacher. This may be done with the understanding that the work of the first year of the high school is to be repeated if not satisfactory.

Several plans have been devised for classifying and promoting pupils in such a way that the needs of all the pupils will be met and that strict justice to all will be secured.

One superintendent, Mr. S. Howard Chace of Dracut, reports his method of making promotions in the grades as follows: —

In April teachers send me the names of their pupils arranged in three columns: —

(a) Those who, in their opinion at the time, ought to be promoted.

(b) Those who ought not to be promoted.

(c) Those about whose promotion they are doubtful for any reason whatever.

This list is kept in the register. Whenever the superintendent visits the school he takes this list and records upon it his opinion of the desirability of promoting the pupils listed thereon, giving special attention to doubtful cases. Both oral and written work is examined, regular and special tests or quizzes. The superintendent's opinion is recorded in data not understood by the teacher, so that her judgment may not be influenced. On the last week in the year the teacher and superintendent confer as to what action will promote the best interests of the individual child.

Several other superintendents report virtually the same plan. The plan is evidently feasible for all the smaller places, certainly for all towns in superintendency unions. In the larger places the same plan could be followed, the supervising principal taking the place of the superintendent in passing judgment upon doubtful cases.

Other plans are followed by which some of the pupils are enabled to go over the required work of a grade more rapidly than others.¹ But any of these plans may well be supplemented by the employment of one or more teachers for a building whose duty it is to assist in good ways a few pupils who cannot work profitably in existing classes. A systematic plan for special promotions should also be followed by every superintendent and teacher.

POWERS AND DUTIES OF SUPERINTENDENTS.

The statutes provide that a superintendent shall be appointed in every town and city, but, apart from certain duties relating to school attendance, they do not prescribe his duties in any definite way. They provide that superintendents shall "have the care and supervision of the public schools," but "under the direction and control of the committee." This provision applies only to cities and towns not within an existing superintendency union, although it is by implication supposed to apply to all. It is not surprising, therefore, that the powers and

¹ For a record of various methods of grading and promotion, see the sixty-first report of the Massachusetts Board of Education, pp. 297-314.

duties of superintendents are somewhat uncertain and varied. The only wonder is that they are not more so.

Abstract of Returns. — Recently a question was asked of all the superintendents of the State respecting the duties and authority given to them by the school committees. So as to make the replies as definite as possible, specific duties were mentioned in the questions, as follows: —

- (1) Selection of text-books.
- (2) Selection of reference books.
- (3) Selection of apparatus.
- (4) Making of course of studies.
- (5) Examination or certification of teachers.
- (6) Appointment of teachers.
- (7) Suspension of teachers.
- (8) Dismissal of teachers.
- (9) Inspection and direction of teachers' work.
- (10) Calling and conducting teachers' meetings.
- (11) Promotion of pupils.

The superintendents were asked to answer each question by one of the following words: "None," "Advisory," "Joint," "Full."

There were replies from 169 superintendents, representing 354 towns and cities.

In respect to the answers in general, it should be said that the terms "Advisory," "Joint" and "Full" were differently interpreted by the superintendents. Some of those who answered "Full" indicated in a note that they had full authority, subject to legal requirements, or, in some cases, subject to the sanction of a sub-committee. Others gave the answer "Advisory," or "Joint," who really had the same authority as those who had given "Full" for the answer. I shall, therefore, refer particularly to those cases in which little or no authority is given to the superintendent.

Text-books and Courses. — In respect to the first four duties mentioned above, one superintendent reports as having no duty or authority whatever. It is difficult enough to understand the reason for having sub-committees to pass upon the merits of text-books, even with the advice of the superintendent; but when text-books are selected and a course of studies is made

by the committee without such advice, the situation becomes almost ludicrous. In some of the boards there are sub-committees upon text-books and courses of studies, but in most cases the recommendation of the superintendent is followed.

Selection of Teachers. — Eight superintendents report that they have no duty to perform in relation to the selection of teachers. The towns in which they are working are rural towns, and the presumption is that the school committees in these towns are virtually holding on to the duties which were done by prudential committees fifty years ago. One superintendent reports that each member has absolute control of the schools assigned him, occasionally, however, seeking the superintendent's assistance in getting a new teacher. Others report that their aid is asked by the committee "only in emergencies," which perhaps may mean when there are no relatives or friends among the candidates.

Among those who report their duty in selecting teachers "Advisory," some admit that there is no rule or custom in the matter. Several allude to the custom of having all the candidates for a single position appear before the committee before an election occurs. One superintendent reports that one of the least competent of the teachers was retained, at an increase of salary, against his advice. Another complains that "considerations of church preference and other matters not directly connected with efficiency have more weight than they ought." Still another pleads for legal authority in this matter, saying that without such authority teachers are likely to be elected for other reasons than those of merit.

Suspension and Dismissal of Teachers. — As might be expected, the prerogative of superintendents in suspending or dismissing teachers in service is much more limited than in the selection of teachers to fill existing vacancies. Nearly 30 superintendents report that they have no authority in dismissing teachers, while some of the others report that the committees are frequently unwilling to follow their advice. It is to be hoped that the establishment of pension funds by the towns will make it easier for committees to retire teachers of long service.

Supervision. — The duty of inspecting and directing the

work of teachers is now almost universally committed to the superintendents. In only 10 towns is that duty shared in any degree by members of the school committee. The direct supervision by committees is slight and in most cases harmless, it being only a continuation of the aimless visitations of former days. If, however, the visits by committees were of the right kind, that is, if they were genuine visits of inspection for the observation of results, they would be of great service to the schools mainly in the intelligent support of the superintendent that they could give.

Teachers' Meetings. — What has been said of superintendents directing the work of teachers in visits applies equally to teachers' meetings. In only 11 towns do the committees take any hand either in calling or in conducting such meetings, and 4 of these towns are in a single superintendency union. In most of the towns the superintendent is given full power to call them, although in too many instances they are required to hold the meetings after school or in the evening.

In General. — Comparing the powers and duties now possessed by superintendents as shown in these reports with the same powers and duties published in my report of nine years ago, we see a marked gain in every item mentioned. This is particularly noticeable in respect to such duties as the selection of text-books, the nomination of teachers, the promotion of pupils, etc. In these duties the powers of superintendents are now for the most part as full as they should be, while the influence of committees and sub-committees in sharing the duties of supervision has manifestly decreased. But the improved attitude of the superintendents toward all the duties properly belonging to them is shown more in the quality of their work than in any statement of prescribed duties. While it is true that in some places the superintendent is obliged by an indifferent or careless board to give more of his time to matters of business which ought to be attended to either by board members or by a clerk, and while it is true also that superintendents are not equally efficient in professional intelligence and skill, I believe there is a general improvement in these respects. There is on the part of all concerned a clearer understanding of the importance and true function of skilled

supervision, and such supervision is in many places carried on with growing intelligence and devotion. Selections of both superintendents and teachers are more carefully made, and there is a greater degree of co-operation on the part of all.

The question is often asked, whether the professional duties of superintendents should not be recognized and perhaps required by statute law. A law of that kind might be of service, especially in correcting the attitude of a few committees who are assuming the duties that properly belong to a superintendent. But even with such a law the effectiveness of the supervision will depend more upon the spirit of the committee than upon any statement of duties that may be made.

CONVEYANCE OF CHILDREN TO SCHOOL.

During the past year there have been referred to me for investigation several complaints, mainly from parents, in relation to the conveyance of their children to school. Some of the complaints appeared to me to be trivial and unreasonable, as, for example, when parents objected to their children walking a mile and a quarter to school over an open road, and expected them to be carried at public expense; and when a few citizens desired a school to be maintained for the benefit of four or five children, and objected to their being carried to the central school.

On the other hand, I have found cases of genuine hardship and injustice, as when children living two miles or more from school were compelled to walk to school or pay their own fares on the electric cars. Two cases of like character came to my attention recently. In both cases the town had fixed the limit for free conveyance at a distance of two miles, and the school committee had, in consequence, refused to provide free conveyance for children who were living inside of the two-mile limit. The children in both cases were young, and the way somewhat woody and lonesome. Perhaps the feelings of the complaining parents were embittered somewhat by the fact that children were given free tickets who lived a little outside the two-mile limit, but who took the cars at the starting place of their own children. The plea of the school committee was that if these children were given free conveyance others in town

would make a similar demand, and that the town could not afford to pay so much. This is no reason why children should be subjected to needless hardship or danger of any kind. If the expense of conveyance is too great for any town, the State should give further assistance. But the fear is that towns sometimes drive too sharp a bargain with persons whose neighborhood school is closed; that even schools are closed for the very purpose of saving expense. It cannot be too strongly emphasized that the children whose neighborhood schools are closed should be treated as well as it is possible to treat them, to the extent at least of bodily protection. Distance limits should not be fixed by towns or by committees. The walking of a mile and a quarter or even a mile is under some circumstances a greater hardship than the walking of two miles or more under other circumstances. The character of the road, and the number, age, sex and health of the children should be considered in determining whether they are to be carried or not.

There is one other thing which should be considered in connection with this matter, and that is the kind of conveyance and oversight that are provided. I was asked recently to investigate a case in which it was charged that the carriage was not what it should be, and that there was not a proper supervision of the children while they were in the carriage. The complaint was made that, for want of oversight, the children were disorderly and sometimes immoral in words and acts. I found that the complaint was well grounded. The teachers admitted this, but felt that they had no authority in the matter.

In view of the possible dangers both to health and morals of improper conveyance, the towns should be charged with certain obligations whenever a consolidation of schools seems necessary. They should be compelled to provide, under proper penalties, such conveyance of the children to the distant school as will be safe for them and as comfortable as circumstances will permit. We are very properly urging the improvement of rural conditions, to the end of keeping as many of the children in the country as possible. If we are sincere in this effort, can we do less than to make the schools as easy to reach as possible? The best conveyance attainable is none too good for those who are compelled to go long distances to the school. We

are all agreed, I believe, that schools should not be consolidated and pupils be carried for financial reasons only. When a school is closed, we should be able to say to the patrons of the school that it is for the educational welfare of the children, and that the closing will not involve any physical or moral injury to them. May we not even go farther than this, and say that, when there is not a distinct social as well as educational gain to the children by consolidation, the schools may remain separate? There is danger, too, of considering the question of educational advancement of these children from the standpoint of city conditions rather than from possible country conditions.

The changes of educational means and methods which will be made in the near future will be seen and felt quite as much in the country as in the city. The country school has not had anything like the attention and direction that the city school has had. All the conditions that are possible in the country have not been fostered and utilized in education as city conditions have been. Country schools have, in consequence, been poor and uninteresting and country life unattractive.

Prof. L. H. Bailey, who is just now very prominent as an advocate and leader in what he calls "redirected" rural conditions, says in one of his latest books on "The State and the Farmer" (p. 157):—

All effective education should (1) develop out of experience; (2) this experience should have relation to vocation or to the pupil's part in life; and (3) every school should be the natural expression of its community.

And again (p. 160):—

It is not necessary to have an entirely new curriculum in order to redirect the rural school. If geography is taught, let it be taught in the terms of the environment. Geography deals with the surface of the earth. It may well concern itself with the school grounds, the highways, the fields and what grow in them, the forests, hills and streams, the hamlet, the people and their affairs. We are now interesting the child in the earth on which he stands, and, as his mind grows, we take him out to the larger view. A good part of geography in a rural community is, or should be, agriculture, whether so called or not.

It will take a long time to "redirect" the rural schools by such standards, and to bring them up to such a condition as

Professor Bailey advises. When they are, we shall probably hear less of the closing of rural schools and of hardships arising from conveying the pupils to distant schools.

MENTALLY DEFECTIVE CHILDREN.

From time to time complaints have been made by superintendents and teachers that there were in the schools exceptional children, who, for their own sake and for the sake of the other children, should be in special schools. Most of the children thus complained of were feeble-minded or mentally defective, and some of them were found so troublesome as to render it necessary to exclude them from the school. To ascertain how many of such children there are, I recently sent out inquiries respecting the number of feeble-minded children; also, the number of blind and deaf children, both in and out of the public schools. There was not a full response to the inquiries, owing to the fact that some of the superintendents were not able to give the number of defectives not in the public schools, and some were uncertain as to what constitutes feeble-mindedness, and so did not answer. In Boston, Springfield and Newton special schools for backward children have been provided. The children in these and other special schools, State and private, are not counted in the figures which follow.

The whole number of cities and towns reporting one or more defectives in school or out was 168. The other 186 cities and towns either did not report or reported no cases. In these 168 cities there are reported 479 feeble-minded children in school and 154 children of the same class out of school.

It is evident from the returns that some of the children reported as feeble-minded are simply backward or slow, although the explanations of the superintendents show that all of them are mentally deficient and require extra attention.

It is reasonable to suppose that there are as many of such children in cities and towns that did not report; so that the number of mentally deficient children in the entire State who need special treatment in separate classes or schools probably amounts to more than 1,200. These children, it is true, are not yet criminals, but some of them are likely to become so, unless they are properly cared for. If the expense of caring

for them is too great for the towns, the State should give extra assistance for the purpose. Quite likely a third of them should be placed in one or the other of the schools for feeble-minded; the rest could be cared for in local schools or classes.

BLIND AND DEAF CHILDREN.

The fewness of blind and deaf-mute children reported as being in the public schools, 15 in all, shows how difficult it is for towns unaided to educate such children. It is difficult, if not impossible, short of a regular census, to ascertain the number of blind and deaf children who are living at home, but who are not in school. Many superintendents report that they have no means of knowing the number of such children. The number reported, 26 blind and 29 deaf, does not probably represent the whole number in the towns reporting. There may be three times as many in the entire State who are not enjoying the benefits of a school. Happily, the generosity of the State and the ample accommodations in good special schools give assurance that these children can be well cared for.

DELINQUENT CHILDREN.

If it is difficult to get from school officials the exact number of defective children, it is quite impossible to ascertain the number of delinquents. The standards of delinquency are so varied that any report by teachers and superintendents cannot be relied upon. The number of children sent to reformatories and truant schools is by no means an indication of the number of delinquent children who need special care. There are in almost every school one or more pupils who are troublesome in one way or another, and who need extra attention, — more attention, in fact, than the regular teacher can give. These children need extra attention, not merely to enable them to do their work better, but to prevent them from wrong-doing, and to get them, if possible, into a normal state of order and obedience. If it seems wise to pursue a policy of preventing criminality in the feeble-minded, it is much more clearly so in respect to those who show signs of lawlessness. These children need to be segregated as early as possible from the other pupils, and to be given more individual care. Such treatment

might be the means of preventing them from that truancy or refractory conduct which would force them into an institution. But a home is what they need most. So important is the home influence as a prevention of criminality, that if parents are unwilling to co-operate with the schools, or if the home conditions are debasing, the State is justified, for its own protection as well as for the protection of the children themselves, to put them into homes where they will be properly cared for. For reasons of economy, if for no other reasons, these children should be rescued from the dangers of criminality which beset them, and the earlier that the measures for rescue are taken, the better.

Respectfully submitted,

JOHN T. PRINCE.

Dec. 31, 1908.

APPENDIX B.

**REPORT OF J. W. MACDONALD,
AGENT OF THE BOARD.**

LANGUAGE INSTRUCTION IN THE HIGH SCHOOLS OF MASSACHUSETTS.

REPORT.

To the State Board of Education.

While pursuing my work of high school visitation during the past year, I have made an effort to study as well as I could, the condition of instruction in languages, including English and literature. As preliminary to what I shall have to say in regard to it, I beg leave to present the following table which shows for each year the amount of time given to the different languages, as measured by recitation periods, and the number of pupils taking them, for every public high school in the State except one very small one, from which there were no returns.

Fifteen cities and towns report five-year courses in their high schools, beginning with the ninth grade. In about 20 or 25 other cities and towns Latin is taught in the upper grammar grade. One effect of this seems to be to reduce the number who take Latin in the high school.

One thing shown by the table, although it has been known before, cannot fail to attract attention. It is the rapid decrease from the first to the last year, in the number of pupils in the language classes, — a decrease in almost every case more rapid than the decrease in the number of pupils in the grades. The columns marked “English” and “Literature” show in every instance but three or four, the numbers in the different grades. As to the falling off in the grades, it should be taken into account that the present fourth-year class was about one-twelfth smaller when it entered than the present fourth-year class.

Where a small town has two or more co-ordinate high schools, these are tabulated as one.

The recitations per year are based on a forty-week year; to get the average actual number, however, the figures in the table should be reduced about five per cent.

Table showing the length of language courses as measured in recitations per year, and the number of pupils each year taking these courses.

[Numbers in the first column indicate the grades, from lowest (1) up. "E." means combined with English; "L," combined with literature; "Yes" or "No" shows whether or not the school has a course requiring no language but English.]

CITIES AND TOWNS.	Grades	LATIN.		GREEK.		FRENCH.		GERMAN.		ENGLISH.		LITERATURE.		Courses with no foreign language.
		No. of recitations.	No. of pupils.	No. of recitations.	No. of pupils.	No. of recitations.	No. of pupils.	No. of recitations.	No. of pupils.	No. of recitations.	No. of pupils.	No. of recitations.	No. of pupils.	
Abington,	1	200	30	-	-	160	43	-	-	200	45	E.	E.	No.
	2	200	21	-	-	160	23	160	15	120	45	E.	E.	
	3	200	12	120	1	120	33	160	13	80	31	E.	E.	
	4	200	5	-	-	-	-	160	3	200	29	E.	E.	
Acton,	1	200	14	-	-	200	13	-	-	120	27	80	27	No.
Adams,	1	200	27	-	-	-	-	-	-	160	61	E.	E.	Yes.
	2	160	23	-	-	160	50	160	17	160	61	E.	E.	
	3	160	12	-	-	160	27	160	11	160	37	E.	E.	
	4	160	8	-	-	160	9	160	6	160	25	E.	E.	
Amesbury,	1	200	45	-	-	-	-	-	-	120	98	80	80	Yes.
	2	200	30	200	2	200	90	-	-	80	83	80	80	
	3	200	10	200	6	200	40	200	30	80	51	80	80	
	4	200	8	200	4	200	26	200	15	40	40	160	160	
Amherst,	1	200	50	-	-	-	-	-	-	80	65	80	80	No.
	2	200	21	200	3	200	24	200	11	80	41	80	80	
	3	200	27	200	0	200	31	200	19	80	40	80	80	
	4	200	25	200	2	200	21	200	16	60	31	60	60	
Andover,	1	200	35	-	-	-	-	-	-	200	45	E.	E.	?
	2	200	26	-	-	160	30	-	-	160	30	E.	E.	
	3	200	5	-	-	160	18	160	12	160	18	E.	E.	
	4	200	6	-	-	160	10	160	7	160	23	E.	E.	
Arlington,	1	160	67	-	-	-	-	-	-	120	125	E.	E.	No.
	2	200	54	-	-	-	-	-	-	160	112	E.	E.	
	3	200	30	200	10	120	60	-	-	120	60	E.	E.	
	4	200	21	200	8	120	44	200	23	80	46	E.	E.	
	5	200	16	200	4	160	29	200	15	120	33	E.	E.	

Table showing the length of language courses as measured in recitations per year, etc. — Continued.

CITIES AND TOWNS.	No. of years.	LATIN.		GREEK.		FRENCH.		GERMAN.		ENGLISH.		LITERATURE.		Course with no foreign language.
		No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	
Belchertown,	1	180	5	-	-	-	-	-	-	180	14	-	-	} No.
	2	180	10	-	-	-	-	-	-	60	15	80	15	
	3	180	3	-	-	144	12	-	-	80	15	80	15	
	4	180	4	-	-	144	9	-	-	-	-	110	13	
Belmont,	1	160	11	-	-	-	-	-	-	160	84	-	-	} E.
	2	160	3	-	-	200	28	200	30	160	15	-	-	
	3	200	3	-	-	160	23	160	12	160	22	E.	E.	
	4	200	4	-	-	160	10	160	13	160	16	-	-	
Bernardston,	1	200	6	-	-	-	-	-	-	40	16	160	16	} No.
	2	200	5	-	-	120	2	120	0	40	6	160	6	
	3	200	0	-	-	120	5	120	2	40	5	160	5	
	4	200	0	-	-	160	0	160	0	-	-	160	1	
Beverly,	1	160	81	-	-	-	-	-	-	80	161	120	120	} Yes.
	2	160	54	160	5	160	113	-	-	80	156	120	120	
	3	160	23	160	7	160	61	160	25	80	105	120	120	
	4	160	17	160	5	160	48	160	29	80	108	120	120	
	5	160	11	160	5	-	-	160	15	80	68	120	120	
Billerica,	1	200	12	-	-	160	16	-	-	160	18	-	-	} No.
	2	200	7	-	-	160	12	-	-	160	15	E.	E.	
	3	200	6	-	-	160	7	160	3	160	12	-	-	
	4	200	4	-	-	160	4	160	5	160	7	-	-	
Blackstone,	1	200	21	-	-	-	-	-	-	140	45	80	80	} No.
	2	200	10	-	-	-	-	-	-	80	21	140	140	
	3	200	11	-	-	120	14	-	-	40	14	80	80	
	4	200	11	-	-	120	14	-	-	40	14	80	80	
Bolton,	1	160	4	-	-	-	-	-	-	80	4	80	80	} Yes.
	2	160	2	-	-	-	-	-	-	40	3	120	120	
	3	160	1	-	-	190	6	-	-	40	7	120	120	
	4	160	0	-	-	190	0	80	4	40	2	120	120	

Table showing the length of language courses as measured in recitations per year, etc. — Continued.

CITIES AND TOWNS.	No. of pupils.	LATIN.		GREEK.		FRENCH.		GERMAN.		ENGLISH.		LITERATURE.		Course with no foreign language.
		No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	
Boston — Con. East Boston,	1	200	53	-	-	200	133	-	-	200	218	}	E.	Yes.
	2	160	25	-	-	160	89	200	14	160	138			
	3	160	13	-	-	160	39	160	17	160	69			
	4	160	5	-	-	160	12	120	2	160	32			
Roxbury,	1	200	69	200	23	200	276	200	108	200	359	}	E.	No.
	2	200	46	-	-	160	97	160	50	160	235			
	3	160	19	160	6	160	44	160	21	160	113			
	4	160	16	-	-	160	14	160	10	160	63			
South Boston,	1	200	76	-	-	160	238	160	85	200	310	}	E.	Yes.
	2	200	38	-	-	160	96	160	21	160	159			
	3	160	18	200	16	160	21	160	7	160	101			
	4	160	11	200	0	120	8	120	0	160	47			
West Roxbury,	1	160	90	-	-	160	173	160	75	200	230	}	E.	Yes.
	2	160	57	-	-	160	70	160	22	160	146			
	3	160	28	-	-	160	42	160	3	160	95			
	4	160	12	-	-	160	12	160	9	160	48			
Mechanic Arts,	1	-	-	-	-	-	-	-	-	100	531	}	E.	No.
	2	-	-	-	-	100	253	-	-	100	256			
	3	-	-	-	-	200	167	-	-	100	167			
	4	-	-	-	-	200	65	200	38	100	81			
High School of Commerce, ¹	1	-	-	-	-	-	-	160	280	80	280	}	E.	No.
	2	-	-	-	-	120	-	160	160	80	160			
	3	-	-	-	-	120	?	160	60	80	60			
	4	-	-	-	-	120	-	160	25	80	25			
Girls' High School of Practical Arts.	1	-	-	-	-	160	97	160	76	160	163	}	E.	No.
	2	-	-	-	-	120	76	120	20	160	65			

Table showing the length of language courses as measured in recitations per year, etc. — Continued.

CITIES AND TOWNS.	No. of reci- tations.	LATIN.	GREEK.	FRENCH		GERMAN.		ENGLISH.		LITERATURE.		Course with no foreign language.
				No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	
Cambridge: — Latin,	1	200	158	—	—	—	—	100	158	—	—	No.
	2	200	140	—	—	200	66	40	140	—	—	E.
	3	200	108	20	20	100	96	100	104	—	—	E.
	4	200	72	14	14	100	18	100	72	—	—	E.
	5	200	56	17	17	—	—	—	56	—	—	E.
English,	1	200	54	—	—	—	—	—	—	—	—	No.
	2	200	57	—	—	—	—	—	—	—	—	No.
	3	200	13	—	—	200	33	—	160	40	224	224
	4	200	12	—	—	200	13	L.	L.	40	160	160
Manual Training,	1	—	—	—	—	100	106	200	136	—	—	No.
	2	—	—	—	—	200	0	100	153	—	—	No.
	3	—	—	—	—	200	64	100	46	—	—	No.
	4	—	—	—	—	200	89	200	70	—	—	No.
	5	—	—	—	—	—	—	—	—	—	—	No.
Totals,	1	—	312	—	—	—	267	—	358	—	—	E.
	2	—	177	—	—	—	96	—	560	—	—	E.
	3	—	121	20	20	—	116	—	264	—	—	E.
	4	—	84	14	14	—	58	—	219	—	—	E.
	5	—	56	7	7	—	—	—	211	—	—	E.
Canton,	1	160	30	—	—	—	—	—	—	160	20	No.
	2	160	9	—	—	—	—	40	19	120	19	No.
	3	200	7	—	—	120	4	40	8	120	8	No.
	4	200	4	—	—	160	8	80	10	120	11	No.
Carver,	1	160	9	—	—	—	—	120	5	80	5	No.
	2	—	—	—	—	—	—	120	2	80	2	No.
	3	—	—	—	—	—	—	120	0	80	0	No.
	4	—	—	—	—	—	—	120	2	80	2	No.

Charlemont,	1	.	.	.	.	.	.	9	120	120	19	{			-	{			No.
	2	.	.	.	.	.	.	8	L.	L.	L.	{			9	{			No.
	3	.	.	.	.	.	.	5	.	.	.	{			9	{			No.
	4	.	.	.	.	.	.	3	.	.	.	{			6	{			No.
Charlton, .	1	.	.	.	.	.	.	10	160	120	13	{			-	{			No.
	2	.	.	.	.	.	.	2	.	.	6	{			-	{			No.
	3	.	.	.	.	.	.	2	160	160	4	{			-	{			No.
	4	.	.	.	.	.	.	0	160	160	12	{			-	{			No.
Chatham, .	1	.	.	.	.	.	.	5	180	144	22	{			-	{			Yes.
	2	.	.	.	.	.	.	7	180	144	13	{			-	{			Yes.
	3	.	.	.	.	.	.	5	180	144	23	{			-	{			Yes.
	4	.	.	.	.	.	.	1	180	144	9	{			-	{			Yes.
Chelmsford,	1	.	.	.	.	.	.	14	200	200	28	{			-	{			Yes.
	2	.	.	.	.	.	.	10	200	200	25	{			-	{			Yes.
	3	.	.	.	.	.	.	5	200	200	11	{			-	{			Yes.
	4	.	.	.	.	.	.	0	200	200	4	{			-	{			Yes.
Chelsea, .	1	.	.	.	.	.	.	34	200	120	-	{			-	{			No.
	2	.	.	.	.	.	.	35	160	160	113	{			-	{			No.
	3	.	.	.	.	.	.	23	160	200	91	{			-	{			No.
	4	.	.	.	.	.	.	13	200	200	82	{			-	{			No.
Chester, .	1	.	.	.	.	.	.	11	200	-	14	{			-	{			Yes.
	2	.	.	.	.	.	.	7	200	-	9	{			-	{			Yes.
	3	.	.	.	.	.	.	3	160	160	6	{			-	{			Yes.
	4	.	.	.	.	.	.	3	160	160	6	{			-	{			Yes.
Chilcopee, .	1	.	.	.	.	.	.	54	200	200	93	{			-	{			Yes.
	2	.	.	.	.	.	.	28	200	200	48	{			-	{			Yes.
	3	.	.	.	.	.	.	5	200	200	L.	{			-	{			Yes.
	4	.	.	.	.	.	.	0	200	200	L.	{			-	{			Yes.
Clinton, .	1	.	.	.	.	.	.	51	200	120	81	{			-	{			Yes.
	2	.	.	.	.	.	.	34	200	200	69	{			-	{			Yes.
	3	.	.	.	.	.	.	12	200	200	L.	{			-	{			Yes.
	4	.	.	.	.	.	.	8	200	200	L.	{			-	{			Yes.
Cohasset, .	1	.	.	.	.	.	.	4	200	160	31	{			-	{			No.
	2	.	.	.	.	.	.	4	200	160	23	{			-	{			No.
	3	.	.	.	.	.	.	6	200	160	15	{			-	{			No.
	4	.	.	.	.	.	.	0	200	160	0	{			-	{			No.

Table showing the length of language courses as measured in recitations per year, etc. — Continued.

CITIES AND TOWNS.	SPECIAL COURSE	LATIN.		GREEK.		FRANCE.		COURSE WITH NO FOREIGN LANGUAGE.
		No. of recitations.	No. of pupils.	No of recitations.	No. of pupils.	No. of recitations.	No. of pupils.	
Concord,	1	200	40	-	-	-	-	Yes.
	2	200	35	200	9	100	60	
	3	200	90	200	8	100	40	
	4	200	90	200	1	100	33	
Conway,	1	160	10	-	-	-	7	No.
	2	160	7	-	-	100	0	
	3	160	8	-	-	100	0	
	4	160	8	-	-	100	4	
Dalton,	1	200	18	-	-	-	-	No.
	2	200	11	-	-	200	32	
	3	200	1	-	-	200	6	
	4	200	4	-	-	200	8	
Danvers,	1	200	46	-	-	-	-	Yes.
	2	200	21	-	-	200	25	
	3	200	15	200	2	200	38	No.
	4	200	21	200	2	200	22	
Dartmouth,	1	200	17	-	-	-	9	Yes.
	2	200	10	-	-	200	22	
	3	160	8	-	-	200	92	No.
	4	-	-	-	-	-	-	
Dedham,	1	200	21	-	-	100	46	Yes.
	2	160	19	200	7	120	48	
	3	200	10	160	6	120	22	No.
	4	200	8	160	2	120	12	
Dennis,	1	200	26	-	-	-	-	Yes.
	2	160	17	-	-	-	-	
	3	160	16	-	-	144	7	No.
	4	160	2	-	-	-	-	

Table showing the length of language courses as measured in recitations per year, etc. — Continued.

CITIES AND TOWNS.	LATIN.		GREEK.		FRENCH.		GERMAN.		ENGLISH.		LITERATURE.		Course with no foreign language.
	No. of recitations.	No. of pupils.	No. of recitations.	No. of pupils.	No. of recitations.	No. of pupils.	No. of recitations.	No. of pupils.	No. of recitations.	No. of pupils.	No. of recitations.	No. of pupils.	
Fairhaven,	1	20	-	-	-	-	-	-	200	44	}	E.	No.
	2	14	-	-	200	28	200	9	200	31			
	3	3	-	-	200	22	200	9	200	28			
	4	7	-	-	200	20	200	4	200	17			
Fall River,	1	150	-	-	-	-	-	-	160	824	}	E.	Yes.
	2	73	11	128	160	128	200	39	160	218			
	3	55	8	137	160-200	137	160-200	66	160	173			
	4	48	22	52	160-200	52	160-200	26	160	178			
Falmouth,	1	200	-	-	-	-	-	-	80	26	}	E.	Yes.
	2	200	-	-	200	23	-	-	80	26			
	3	200	-	-	160	13	200	6	80	14			
	4	200	-	-	160	9	160	6	40	16			
Fitchburg,	1	71	-	-	200	27	-	-	160	217	}	-	Yes.
	2	41	6	95	200	95	200	8	160	132			
	3	28	7	54	200	54	200	23	160	96			
	4	21	1	16	200	16	200	33	160	30			
Foxborough,	1	23	-	-	-	-	-	-	120	36	}	E.	Yes.
	2	7	-	-	200	10	160	11	120	23			
	3	4	-	-	200	9	160	2	80	13			
	4	8	-	-	-	-	160	8	80	8			
Framlingham,	1	20	-	-	200	80	-	-	60	}	}	}	Yes.
	2	6	-	-	160	60	200	40	60	100			
	3	12	-	-	120	80	120	31	40	100			
	4	10	-	-	120	18	200	24	60	80			
Franklin,	1	13	-	-	-	-	-	-	80	32	}	E.	Yes.
	2	12	-	-	200	32	200	3	80	24			
	3	11	-	-	200	13	200	11	80	22			
	4	2	-	-	200	5	200	0	80	16			

Table showing the length of language courses as measured in recitations per year, etc. — Continued.

CITIES AND TOWNS.	Grade.	GERMAN.		ENGLISH.		LITERATURE.		Courses with no foreign language.
		No. of recitations.	No. of pupils.	No. of recitations.	No. of pupils.	No. of recitations.	No. of recitations.	
Hamilton, .	1	-	-	80	13	80	E.	No.
	2	-	-	80	10	80	E.	
	3	120	0	80	2	80	E.	
	4	120	0	80	0	80	E.	
Hanover, .	1	-	-	80	18	120	E.	No.
	2	-	-	40	15	120	E.	
	3	-	-	40	9	120	E.	
	4	-	-	60	2	120	E.	
Hartwick, .	1	-	-	120	18	E.	E.	No.
	2	-	-	120	19	E.	E.	
	3	120	2	120	9	E.	E.	
	4	120	2	120	13	E.	E.	
Harwich, .	1	-	-	40	22	120	E.	Yes.
	2	-	-	40	12	120	E.	
	3	-	-	40	5	120	E.	
	4	-	-	40	12	120	E.	
Haverhill, .	1	-	-	80	200	60	E.	Yes.
	2	-	-	80	125	80	E.	
	3	160	50	60	125	60	E.	
	4	200	85	80	130	80	E.	
Hingham, .	1	-	-	80	60	120	E.	Yes.
	2	-	-	40	55	120	E.	
	3	200	11	40	55	160	E.	
	4	200	9	40	30	160	E.	
Holbrook, .	1	-	-	80	19	80	E.	No.
	2	-	-	80	18	80	E.	
	3	100	10	80	11	80	E.	
	4	160	7	80	13	80	E.	

Holden, .	1	.	.	.	.	.	200	16	-	-	-	-	12	-	-	80	16	E.	No.
	2	.	.	.	.	.	160	11	-	-	-	-	9	-	-	140	12	E.	No.
	3	.	.	.	.	.	160	8	-	-	-	-	7	-	-	90	8	E.	No.
	4	.	.	.	.	.	160	5	-	-	-	-	7	-	-	80	8	E.	No.
Holliston, .	1	.	.	.	.	.	200	18	-	-	-	-	-	-	-	200	15	E.	No.
	2	.	.	.	.	.	160	7	-	-	-	-	-	-	-	120	18	E.	No.
	3	.	.	.	.	.	160	7	-	-	-	-	-	-	-	120	8	E.	No.
	4	.	.	.	.	.	160	0	-	-	-	-	23	-	-	120	13	E.	No.
Holyoke, .	1	.	.	.	.	.	200	124	-	-	-	-	-	-	-	160	350	E.	Yes.
	2	.	.	.	.	.	200	72	-	-	-	-	280	-	-	160	182	E.	Yes.
	3	.	.	.	.	.	200	86	-	-	-	-	140	-	-	160	160	E.	Yes.
	4	.	.	.	.	.	200	24	-	-	-	-	56	-	-	160	117	E.	Yes.
Hopedale, .	1	.	.	.	.	.	160	12	-	-	-	-	-	-	-	80	19	E.	No.
	2	.	.	.	.	.	160	4	-	-	-	-	-	-	-	40	5	E.	No.
	3	.	.	.	.	.	160	2	-	-	-	-	21	-	-	40	7	E.	No.
	4	.	.	.	.	.	160	0	-	-	-	-	-	-	-	40	7	E.	No.
Hopkinton, .	1	.	.	.	.	.	200	10	-	-	-	-	-	-	-	40	25	E.	No.
	2	.	.	.	.	.	160	11	-	-	-	-	-	-	-	60	22	E.	No.
	3	.	.	.	.	.	160	8	-	-	-	-	9	-	-	40	9	E.	No.
	4	.	.	.	.	.	160	4	-	-	-	-	7	-	-	80	7	E.	No.
Hubbardston, .	1	.	.	.	.	.	144	10	-	-	-	-	-	-	-	36	10	E.	No.
	2	.	.	.	.	.	144	5	-	-	-	-	5	-	-	36	5	E.	No.
Hudson, .	1	.	.	.	.	.	200	38	-	-	-	-	-	-	-	40	86	E.	No.
	2	.	.	.	.	.	200	27	-	-	-	-	-	-	-	40	61	E.	No.
	3	.	.	.	.	.	200	8	-	-	-	-	23	-	-	40	44	E.	No.
	4	.	.	.	.	.	200	13	-	-	-	-	26	-	-	40	33	E.	No.
	5	.	.	.	.	.	200	0	-	-	-	-	10	-	-	40	20	E.	No.
Huntington, .	1	.	.	.	.	.	160	2	-	-	-	-	-	-	-	40	17	E.	Yes.
	2	.	.	.	.	.	200	9	-	-	-	-	23	-	-	40	14	E.	Yes.
	3	.	.	.	.	.	200	5	-	-	-	-	7	-	-	40	13	E.	Yes.
	4	.	.	.	.	.	200	1	-	-	-	-	8	-	-	40	7	E.	Yes.
Hyde Park, .	1	.	.	.	.	.	200	46	-	-	-	-	-	-	-	80	120	E.	No.
	2	.	.	.	.	.	200	30	-	-	-	-	78	-	-	80	115	E.	No.
	3	.	.	.	.	.	200	18	-	-	-	-	52	-	-	80	62	E.	No.
	4	.	.	.	.	.	200	15	-	-	-	-	24	-	-	80	64	E.	No.

Table showing the length of language courses as measured in recitations per year, etc. — Continued.

CITIES AND TOWNS.	No. of years.	LATIN.		GREEK.		FRENCH.		GERMAN.		ENGLISH.		LITERATURE.		Course with no foreign language.
		No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	
Ipswich,	1	160	18	-	-	-	-	-	-	40	-	180	46	No.
	2	180	7	160	21	160	21	-	-	L.	L.	120	21	
	3	320	5	160	0	160	15	160	15			120	15	
	4	280	2	200	1	160	6	160	6			120	7	
Kingston,	1	200	18	-	-	-	-	-	-	100	18	100	100	Yes.
	2	200	3	-	-	200	11	-	-	80	13	120	120	
	3	200	3	-	-	160	6	200	0	80	13	120	120	
	4	200	0	-	-	100	2	-	-	80	2	120	120	
Lancaster,	1	200	8	-	-	-	-	-	-	160	18	-	-	Yes.
	2	200	4	-	-	200	11	-	-	160	18	-	-	
	3	200	3	-	-	200	8	200	0	160	13	-	-	
	4	200	3	-	-	200	5	200	3	-	-	160	6	
Lawrence,	1	200.	315	-	-	-	-	-	-	200	322	E.	E.	Yes.
	2	200	126	200	13	200	195	200	85	100	190			
	3	200	51	200	14	200	80	200	26	100	117			
	4	200	35	200	5	200	28	200	8	200	123			
Lee,	1	200	15	-	-	-	-	-	-	80	20	120	120	No.
	2	200	14	-	-	200	25	-	-	80	29	120	120	
	3	200	6	-	-	200	10	200	6	80	10	120	120	
	4	200	11	-	-	200	17	200	5	80	19	120	120	
Leicester,	1	200	-	-	-	-	-	-	-	80	26	80	80	No.
	2	200	-	-	-	200	-	-	-	80	16	80	80	
	3	200	-	-	-	160	-	200	-	40	15	120	120	
	4	200	-	-	-	160	-	160	-	40	17	120	120	
Lenox,	1	200	35	-	-	-	-	-	-	200	35	E.	E.	No.
	2	200	7	-	-	200	7	-	-	200	7			
	3	200	0	-	-	200	8	-	-	120	8			
	4	200	2	-	-	200	12	-	-	120	12			

Table showing the length of language courses as measured in recitations per year, etc. — Continued.

CITIES AND TOWNS.	No. of years.	LATIN.		GREEK.		FRENCH.		GERMAN.		ENGLISH.		LITERATURE.		Course with no foreign language.	
		No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.		
Malden,	1	200	181	-	-	-	-	-	-	160	344	}	E.	Yes.	
	2	200	94	200	11	200	109	200	38	160	232		E.		
	3	200	85	200	1	200	120	200	83	160	176				
	4	200	21	200	4	200	42	200	45	160	113				
Manchester,	1	200	25	-	-	-	-	-	-	120	45	}	80	Yes.	
	2	200	8	-	-	200	16	-	-	120	16		80		
	3	200	5	-	-	200	5	200	2	120	15		80		
	4	200	2	-	-	200	4	200	1	120	6		80		
Mansfield,	1	200	24	-	-	-	-	-	-	20	40	}	180	Yes.	
	2	200	12	-	-	200	31	-	-	20	30		180		
	3	200	10	-	-	160	18	160	11	40	27		160		
	4	200	4	-	-	160	6	160	6	40	14		160		
Marblehead,	1	200	8	-	-	-	-	-	-	40	50	}	80	No.	
	2	200	13	-	-	200	41	-	-	40	42		80		
	3	200	5	-	-	200	33	200	20	40	34		80		
	4	200	6	-	-	200	18	200	13	40	26		120		
Marlborough,	1	200	48	-	-	-	-	-	-	160	102	}	E.	Yes.	
	2	160	45	200	4	160	49	160	30	160	68				
	3	160	15	160	0	160	40	160	20	160	53				
	4	200	5	160	3	160	19	160	5	160	45				
Marshfield,	1	200	12	-	-	-	-	-	-	80	L.	}	80	No.	
	2	160	3	-	-	-	-	-	-	80	L.		80		
	3	160	4	-	-	160	10	-	-	L.	L.		160		
	4	160	0	-	-	160	8	-	-				160		
Maynard,	1	200	30	-	-	-	-	-	-	200	50	}	-	No.	
	2	200	0	-	-	-	-	-	-	200	24		-		
	3	200	0	-	-	-	-	-	-	200	20		-		
	4	200	6	-	-	-	-	-	-	-	-		160		
	5	200	5	-	-	200	32	200	3	-	-		160		

[illegible]

Natick,	1	200	62	-	-	4	200	0	80	90	80	E.	Yes.
	2	200	98	-	-	16	200	18	80	76	80	E.	
	3	200	17	-	-	15	200	11	80	42	80	E.	
	4	200	16	-	-	21	200	10	40	42	80	E.	
Needham,	1	200	28	-	-	-	-	-	40	54	120	E.	No.
	2	200	26	-	-	25	200	82	40	46	120	E.	
	3	200	8	-	-	25	200	16	40	27	120	E.	
	4	200	3	-	-	5	200	6	40	25	120	E.	
New Bedford,	1	200	70	-	-	72	200	-	80	203	40	203	Yes.
	2	200	58	10	160	49	200	53	80	147	40-80	91	
	3	160	37	4	160	46	160	41	80	108	40-120	57	
	4	160	21	4	160	56	160	31	80	74	40-80	38	
Newburyport,	1	200	73	-	-	90	200	-	80	150	40	E.	No.
	2	200	54	12	200	90	-	-	80	110	40	E.	
	3	200	22	0	160	40	160	32	80	70	80	E.	
	4	200	15	10	160	30	160	23	80	60	80	E.	
New Marlborough,	1	200	4	-	-	-	-	-	80	11	40	E.	Yes.
	2	120	4	-	-	0	-	-	40	17	80	E.	
	3	120	1	-	-	2	160	12	80	3	40	E.	
	4	120	0	-	-	0	120	0	40	0	40	E.	
New Salem,	1	200	4	-	-	-	-	-	40	15	120	15	Yes.
	2	160	0	-	-	7	160	3	L.	L.	120	4	
	3	160	2	-	-	2	160	8	L.	L.	120	8	
	4	160	1	-	-	2	160	0	L.	L.	120	4	
Newton,	1	200	187	-	160	163	160	76	120-160	322	E.	E.	Yes.
	2	200	113	16	120-200	210	120-200	181	120-160	323	E.	E.	
	3	200	74	14	120-200	156	120-200	106	80-160	207	E.	E.	
	4	200	63	8	120-200	82	200	76	120-160	188	E.	E.	
Norfolk,	1	200	5	-	-	-	-	-	40	6	120	E.	Yes.
	2	200	0	-	-	-	160	4	40	4	120	E.	
North Adams,	1	200	76	0	-	-	-	-	160	133	E.	E.	Yes.
	2	200	24	3	200	72	-	-	160	71	E.	E.	
	3	200	38	13	200	38	200	27	160	94	E.	E.	
	4	200	16	6	200	15	200	8	160	59	E.	E.	

Table showing the length of language courses as measured in recitations per year, etc. — Continued.

CITIES AND TOWNS.	No. of years.	LATIN.		GREEK.		FRENCH.		GERMAN.		ENGLISH.		LITERATURE.		Course with no foreign language.
		No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	
North Andover,	1	200	11	-	-	-	-	-	-	40	27	80	-	Yes.
	2	200	9	200	0	200	13	200	8	40	24	80	-	
	3	200	3	200	0	200	7	200	10	40	17	80	-	
	4	200	4	200	0	200	8	200	2	40	14	80	-	
North Attleborough,	1	200	40	-	-	-	-	-	-	80	56	80	-	Yes.
	2	160	24	-	-	-	-	160	43	40	44	120	-	
	3	160	6	-	-	160	20	160	28	40	32	120	-	
	4	160	14	-	-	160	14	160	17	40	24	120	-	
Northborough,	1	200	5	-	-	160	8	-	-	40	16	40	-	Yes.
	2	200	0	200	0	160	2	-	-	40	5	40	-	
	3	200	4	160	0	160	6	-	-	40	8	80	-	
	4	160	1	200	0	160	5	-	-	40	4	80	-	
Northbridge,	1	200	30	-	-	200	43	-	-	200	60	-	-	?
	2	200	16	-	-	200	17	-	-	200	32	E.	-	
	3	200	14	-	-	-	-	200	4	200	16	-	-	
	4	200	8	-	-	-	-	200	4	200	11	-	-	
	5	200	2	-	-	-	-	-	-	-	-	-	-	
North Brookfield,	1	200	27	-	-	-	-	-	-	-	-	160	27	No.
	2	200	9	200	6	200	5	-	-	L.	L.	120	9	
	3	200	8	200	3	160	11	-	-	-	-	120	13	
	4	200	6	200	3	200	15	-	-	-	-	120	15	
Northfield,	1	200	21	-	-	-	-	-	-	120	28	-	-	Yes.
	2	200	11	-	-	200	0	-	-	-	-	120	17	
	3	200	5	-	-	200	7	200	2	-	-	120	8	
	4	200	3	-	-	200	6	200	1	L.	L.	80	10	
Northampton,	1	200	78	-	-	-	-	-	-	160	90	E.	-	Yes.
	2	200	38	200	5	200	50	200	36	120	77	-	-	
	3	200	25	160	4	160	42	160	33	120	85	-	-	
	4	200	40	160	7	160	38	160	15	160	73	-	-	

Table showing the length of language courses as measured in recitations per year, etc. — Continued.

CITIES AND TOWNS.	LATIN.		GREEK.	No. of pupils.	Course with no foreign language.
	No. of recitations.	No. of pupils.			
Pembroke,	1	18	1	18	No.
	2	9	2	L.	No.
	3	1	3		Yes.
	4	0	4		No.
Pepperell,	1	29	1	L.	Yes.
	2	16	2		No.
	3	4	3		Yes.
	4	1	4		No.
Petersham,	1	10	1	19	Yes.
	2	1	2	8	No.
	3	0	3	-	Yes.
	4	6	4	-	No.
Pittsfield,	1	96	1	117	Yes.
	2	83	2	106	No.
	3	30	3	80	Yes.
	4	24	4	80	No.
Plainville,	1	1	1	10	Yes.
	2	2	2	11	No.
	3	6	3	8	Yes.
	4	4	4	5	No.
Plymouth,	1	44	1	L.	Yes.
	2	29	2		No.
	3	19	3		Yes.
	4	5	4		No.
Princeton,	1	5	1	6	Yes.
	2	0	2	4	No.
	3	0	3	4	Yes.
	4	0	4	0	No.

Table showing the length of language courses as measured in recitations per year, etc. — Continued.

CITIES AND TOWNS.	No. of years.	LATIN.		GREEK.		FRENCH.		GERMAN.		ENGLISH.		LITERATURE.		Course with no foreign language.
		No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	
Sandwich,	1	200	6	-	-	-	-	-	-	L.	L.	{	120	Yes.
	2	200	0	-	-	160	2	200	6				120	
	3	240	8	-	-	160	6	200	2				120	
	4	200	0	-	-	160	8	200	3				120	
Saugus,	1	200	30	-	-	-	-	-	-	60-80	54	{	60-80	Yes.
	2	160	15	-	-	160	16	160	15				100	
	3	160	16	-	-	160	21	160	33				100	
	4	160	7	-	-	160	8	160	9				120	
Scituate,	1	160	19	-	-	-	-	-	-	L.	L.	{	160	No.
	2	160	10	-	-	120	20	-	-				160	
	3	160	6	-	-	120	11	120	5				120	
	4	120	2	-	-	120	5	120	7				120	
Sharon,	1	200	26	-	-	-	-	-	-	36	36	{	-	Yes.
	2	200	5	-	-	200	8	-	-				120	
	3	200	6	-	-	200	12	-	-				120	
	4	160	0	-	-	160	2	200	2				120	
Sheffield,	1	200	11	-	-	-	-	-	-	L.	L.	{	120	No.
	2	200	4	-	-	-	-	160	13				120	
	3	200	6	-	-	160	0	120	0				120	
	4	200	0	-	-	160	9	120	0				120	
Shelburne,	1	200	40	-	-	-	-	-	-	51	51	{	-	No.
	2	200	30	200	6	-	-	-	-				E.	
	3	200	15	200	6	200	16	200	18				E.	
	4	200	12	200	5	200	21	200	26				E.	
Shirley,	1	200	8	-	-	-	-	-	-	160	11	{	-	No.
	2	200	7	-	-	160	11	-	-				120	
	3	200	4	-	-	160	7	120	3				120	
	4	200	1	-	-	160	2	120	2				120	

Table showing the length of language courses as measured in recitations per year, etc. — Continued.

CITIES AND TOWNS.	GRADE.	LATIN.		GREEK.		FRENCH.		GERMAN.		ENGLISH.		LETTER.	Course with no foreign language.
		No. of recitations.	No. of pupils.	No. of recitations.	No. of pupils.	No. of recitations.	No. of pupils.	No. of recitations.	No. of pupils.	No. of recitations.	No. of pupils.		
Springfield:— Central,	1	200	212	—	—	200	172	—	—	200	212	E.	No.
	2	200	78	200	5	200	74	200	85	200	142		Yea.
	3	200	84	200	12	200	27	200	26	200	150		—
	4	200	66	200	12	200	10	200	26	200	122		—
Technical,	1	200	46	—	—	—	—	—	—	80-140	225	80-100 40-80 100-150 60-120	No.
	2	200	22	—	—	200	145	—	—	80-120	222		Yea.
	3	200	14	—	—	200	75	200	23	40-80	182		—
	4	—	—	—	—	120	45	200	40	80-120	80		—
Totals,	1	—	258	—	—	—	172	—	—	—	202	—	—
	2	—	100	—	5	—	219	—	85	—	402		—
	3	—	98	—	12	—	112	—	61	—	282		—
	4	—	66	—	12	—	55	—	60	—	212		—
Sterling,	1	160	2	—	—	—	—	—	—	160	7	E.	No.
	2	160	2	—	—	160	12	—	—	160	12		Yea.
	3	160	0	—	—	160	5	—	—	160	4		—
	4	—	—	—	—	—	—	—	—	—	—		—
Stockbridge,	1	200	2	—	—	—	—	—	—	40	10	200 200 120 120	No.
	2	200	9	—	—	200	11	—	—	80	16		Yea.
	3	200	2	—	—	120	7	200	4	80	12		—
	4	200	2	—	—	120	2	120	2	80	5		—
Stoneham,	1	200	18	—	—	—	—	—	—	120	44	—	Yea.
	2	200	19	—	—	160	47	—	—	40	44		—
	3	200	9	—	—	120	19	200	9	L.	L.		—
	4	200	9	—	—	120	20	120	20	—	—		—
Stoughton,	1	200	16	—	—	—	—	—	—	120	24	—	Yea.
	2	120	7	—	—	—	—	160	6	40	18		—
	3	160	6	—	—	160	15	160	12	40	16		—
	4	200	6	—	—	160	9	160	7	40	11		—

Table showing the length of language courses as measured in recitations per year, etc. — Continued.

CITIES AND TOWNS.	No. of years.	LATIN.		GREEK.		FRENCH.		GERMAN.		ENGLISH.		LITERATURE.		Courses with no foreign language.								
		No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.									
Upton,	1	200	10	-	-	-	16	-	-	80	25	80	}	Yes.								
	2	200	4	-	-	200	15	-	-	80	20	80			}							
	3	200	5	-	-	200	15	-	-	80	20	80				}						
	4	200	2	-	-	200	7	200	4	80	11	80					}					
Uxbridge,	1	200	13	-	-	-	-	-	-	120	26	80	}	Yes.								
	2	200	6	-	-	-	-	-	-	120	16	80			}							
	3	160	0	-	-	200	10	-	-	80	21	80				}						
	4	160	1	-	-	200	8	-	-	40	5	120					}					
Wakefield,	1	200	55	-	15	-	-	-	-	40	140	120	}	No.								
	2	160	23	200	8	160	94	-	-	40	94	80			}							
	3	160	27	200	4	160	42	160	39	40	78	80				}						
	4	160	10	160	4	160	18	160	16	40	59	120					}					
Walpole,	1	200	23	-	-	-	-	-	-	}	L.	200	43	Yes.								
	2	200	21	-	-	-	-	200	23						}			L.	160	24		
	3	200	9	-	-	200	6	160	15							}					L.	200	27
	4	200	6	-	-	200	4	200	4								}							L.	200	18
Waltham,	1	160-200	101	-	-	-	-	-	-	40	196	80	}	No.								
	2	200	58	200	0	-	-	160	129	40	129	80			}							
	3	200	26	200	7	-	-	160	77	40	83	80				}						
	4	200	30	200	4	200	65	200	26	40	83	80					}					
Ware,	1	200	21	-	6	-	26	-	-	}	L.	160	39	Yes.								
	2	200	18	200	0	200	12	-	-						}			L.	150	34		
	3	200	6	200	2	200	10	200	6							}					L.	150	23
	4	200	6	200	2	200	6	200	6								}							L.	150	19
Wareham,	1	200	8	-	-	-	-	-	-	160	36	40	}	No.								
	2	200	3	-	-	200	9	-	-	160	26	40			}							
	3	200	6	-	-	200	15	200	8	}	L.	160				19						
	4	160	3	-	-	160	6	160	3								}	L.	200	7		

Warren,	1	200	30	-	-	25	-	-	80	42	180	E.	No.
	2	200	14	-	-	19	-	-	40	23	190		
	3	200	8	-	-	14	-	-	40	20	190		
	4	200	5	-	-	-	-	-	40	19	190		
Watertown,	1	200	50	-	0	-	160	73	20	73	100	E.	No.
	2	200	25	-	0	-	160	50	20	59	100		
	3	200	7	-	0	12	120	24	40	35	80		
	4	200	14	-	3	18	120	26	40	40	120		
Wayland,	1	160	8	-	-	-	-	-	160	14	-		?
	2	160	6	-	-	17	-	-	180	17	-		
	3	160	5	-	-	18	-	-	L.	L.	120		
	4	160	2	-	-	3	-	-	L.		120		
Webster,	1	160	20	-	-	-	-	-	40	40	120	E.	No.
	2	200	20	-	-	-	-	-	40	37	120		
	3	200	6	-	-	-	-	17	40	20	120		
	4	200	9	-	-	15	160	12	40	15	80		
	5	200	8	-	3	9	160	5	40	14	80		
Wellesley,	1	200	34	-	9	50	-	22	L.	L.	120		No.
	2	200	30	-	7	23	200	23			80		
	3	200	17	-	6	19	120	0			80		
	4	200	13	-	-	-	120	-			160		
Wellfleet,	1	120	3	-	-	3	-	-	160	2	160		Yes.
	2	160	3	-	-	8	-	-	80	11	160		
	3	80	3	-	-	2	-	-	80	2	160		
	4	120	4	-	-	4	-	-	80	6	160		
Westborough,	1	200	24	-	-	23	-	-	120	31	-		No.
	2	200	13	-	-	27	-	-	120	23	-		
	3	200	9	-	-	9	200	18	L.	L.	120		
	4	200	2	-	-	-	200	4	L.		120		
West Boylston,	1	160	10	-	0	7	-	-	120	10	E.		Yes.
	2	160	6	-	0	8	-	-	120	6			
	3	160	8	-	0	0	-	-	L.	L.	160		
	4	160	0	-	2	0	-	-	L.		160		
Westfield,	1	200	32	-	2	39	-	12	160	140	-		Yes.
	2	200	39	-	4	36	200	30	200-80	101	-		
	3	200	20	-	1	19	200	16	80	48	200		
	4	200	10	-	-	-	200	-	-	-	200		

Table showing the length of language courses as measured in recitations per year, etc. — Continued.

CITIES AND TOWNS.	No. of pupils.	GERMAN.		ENGLISH.		LATIN.		Course with no foreign language.
		No. of recitations.	No. of pupils.	No. of recitations.	No. of pupils.	No. of recitations.	No. of pupils.	
Westford,	1	-	-	80	-	120	21	No.
	2	-	-	80	-	120	22	No.
	3	-	-	L.	-	120	4	No.
	4	-	-	L.	-	120	4	No.
Westminster,	1	-	-	20	12	-	-	Yes.
	2	-	-	30	8	80	9	Yes.
	3	-	-	40	4	150	4	Yes.
	4	-	-	-	-	-	-	Yes.
West Newbury,	1	-	-	-	-	200	8	Yes.
	2	-	-	-	-	120	16	Yes.
	3	-	-	-	-	120	11	Yes.
	4	-	-	-	-	120	4	Yes.
Weston,	1	-	-	40	25	120	-	No
	2	-	-	40	17	120	-	No
	3	-	-	40	11	120	-	No
	4	-	-	40	8	120	-	No
Westport,	1	-	-	-	-	120	5	Yes.
	2	-	-	-	-	120	2	Yes.
	3	-	-	-	-	-	-	Yes.
	4	-	-	-	-	-	-	Yes.
West Springfield,	1	-	-	120	64	80	64	No.
	2	-	-	48	48	48	48	No.
	3	-	-	L.	L.	80-120	58	No.
	4	-	-	-	-	152-155	7	No.
Weymouth,	1	-	-	80	106	40	-	Yes.
	2	-	-	80	98	40	-	Yes.
	3	-	-	40	60	120	-	Yes.
	4	-	-	40	38	160	-	Yes.
Whitman,	1	-	-	40	64	120	-	Yes.
	2	-	-	80	34	40	-	Yes.
	3	-	-	80	38	80	-	Yes.
	4	-	-	40	36	120	-	Yes.

[illegible]

Table showing the length of language courses as measured in recitations per year, etc. — Concluded.

CITIES AND TOWNS.	No. of years.	LATIN.		GREEK.		FRENCH.		GERMAN.		ENGLISH.		LITERATURE.		Course with no foreign language.		
		No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.	No. of reci- tations.	No. of pupils.			
Worcester — Con. South,	1	280	53	-	-	200	186	-	-	}	L.	}	200	238	}	Yes.
	2	280	69	200	12	200	136	200	77		L.		200	130		
	3	200	30	200	9	200	22	200	87				200	122		
	4	200	30	200	6	200	18	200	15				200	131		
Totals,	1	-	203	-	-	-	333	-	91	}	-	-	763	}	-	
	2	-	243	-	48	-	307	-	208		-	-	435		-	
	3	-	141	-	25	-	180	-	182		-	-	356		-	
	4	-	118	-	15	-	108	-	79		-	-	339		-	
	5	-	9	-	-	-	-	-	-		-	-	9		-	
Wrentham,	1	200	8	-	-	-	-	-	-	}	L.	200	18	}	No.	
	2	200	2	-	-	200	8	-	-			200	11			
	3	200	0	-	-	200	4	200	11			100	8			
	4	200	2	-	-	120	3	200	2			100	3			

One who examines the preceding table cannot but be impressed with the evidence of the rapid decline in the study of Greek, shown not only by the number of schools that have dropped it from their programs, but also by the small number of pupils electing it where it is still offered.

An inquiry into the condition of Massachusetts high schools in 1899, the results of which were published in the sixty-third report of the Board, showed that of the 248 general high schools in the State, all but 81 (these the very smallest) offered instruction in Greek and had classes in it; now, of these same schools, all but 82 have dropped it, and several others report that they are to discontinue it after the present year.

There are many, of whose education Greek has been a part, who will regret this tendency, and undoubtedly much in the way of culture will be lost from the schools; but to spend so large a part of the time given to secondary education, on two dead languages, which to a large extent duplicate each other's educational values, seems undesirable, and the option between Latin and Greek proves to be working fatally for the latter. It will be a good while yet, however, before Greek entirely disappears. It has its advocates, and it is a valuable element in the training for at least one of the learned professions. It will undoubtedly be taught for a long time yet in the stronger high schools and in private academies.

There are a few high schools in the State that offer instruction in Spanish if enough pupils ask for it to justify the formation of a class, but the language can hardly be said to have a standing in courses of studies as yet. Indeed, there is a feeling among language teachers that the high school is overloaded with language instruction already, and there are those who think that we altogether overestimate the value of a foreign language as an element of a liberal education. For one, I believe that pupils as a rule get from their high school courses an altogether too small amount of useful knowledge, — knowledge of physics and chemistry, of physiology and hygiene, of history and economics, of almost everything, in short, which man needs to know in order to know how to live; yet much of this has been crowded out to make room for instruction in languages that rarely goes beyond the mechanical stage. It will be seen by the

last column of the table that nearly half of the high schools of the State provide no courses for pupils who do not wish to take a foreign language. This is to be expected in special classical schools, but in a general high school it seems to me to show lamentable narrowness. There are subjects enough to make up a course, that are far more worth knowing than the rudiments of a language. It is suggestive, in this connection, that neither the Greeks nor the Romans, whose literature we have so long studied as models, learned any language but their own; and that while Rome was extending her dominion and civilization, her generals had to depend for interpreters on the people they were conquering.

The opinion is occasionally expressed that Latin also should be dropped from the high school curriculum, and its place supplied by a modern language. To this opinion I do not subscribe. It is based on the notion that there is greater utility in a living language than in a dead one. This seems plausible if one does not stop to reflect that the utility of what one learns, depends, not on the thing itself, but on the use he makes of it.

Let it be granted that very few who study Latin, except those who teach it, keep it up or make any direct use of it after they leave school or college; the same is true, I believe, to about an equal percentage of those who have studied the modern languages. In this busy age, few whose mother tongue is a language rich in literature, will ever keep any other language up to the utility point, unless they teach it or go to live where it is spoken. In choosing, then, the language to be studied, for forty-nine out of fifty pupils, the question is not one of use, but rather of by-products, as one may say; that is, of the discipline and intellectual equipment that they will get from the study. To show where the superiority in this respect lies, more will hardly be necessary than to name the literature read in connection with Latin, and compare it, as a means of producing intellectual fiber, with such literature as Sandeau's "*Mlle. de la Seigliere*," Jules Verne's "*Tour du monde en quatre vingts jours*," Merimee's "*Colomba*," Dumas' "*La Tulipe noire*," Hauff's "*Das Kalte Hertz*," Zschokke's "*Der zerbrochene Krug*," Storm's "*Immensee*" and Von Hillern's "*Höher als die Kirche*." These are all very pretty little stories, told in

choice language and in a charming style, and they are admirably suited to the purpose for which they were written, — an easy and enjoyable pastime for a leisure hour; but they contain very little that is of general or fundamental educational value, as compared with Cæsar, for example, wherein the pupils are made familiar with events which were in a way the very beginnings of the history and civilization of Europe and America, and which show how the world's progress has been effected.

It is urged that modern languages are easier than Latin. This is probably true in some respects. Certainly the literature read in connection with them is very much easier, — just such literature, in fact, as people without any educational end in view would read any way; but it has hardly been established, I think, that easiness is one of the qualities that gives educational value to a subject. Is it not more likely that if the work of the high school calls for no greater mental effort than outside boys and girls of their own volition put into their reading, the former, as an educational uplift, will be of as little value as the latter?

But even on the basis of utility, the argument is not all on the side of the modern languages. Latin is the official language of a church that counts its communicants in this country by the millions.

Language instruction in the high school is much hampered by a lack of teachers properly equipped and trained, and by the unwillingness of pupils to buckle down to study.

Building on the work of the high school, it would seem as if the colleges ought to give a high degree of practical efficiency in language training, but judged by the teaching test, the results are somewhat disappointing. Their graduates have learned considerable about languages, or rather have filled a great many note books with information about them, but somehow have not acquired the facility in the use of them that a teacher needs.

As to the difficulty of getting pupils to work, this may be in part due to the teaching. One thing, however, is sure; a great deal more could be accomplished if pupils could be induced to take a greater interest in their own education.

Of course all that I have said of the disciplinary value of the classical languages as compared with the modern, rests on

the assumption that both are taught equally well. The method of teaching is, after all, the thing of chief importance. I wish therefore to call attention to this somewhat in detail, beginning with Latin.

Latin. — It is not uncommon for the advocates of any particular subject in school courses to argue for it on the assumption that students who take it always get from it the intellectual and cultural benefit which it is especially adapted to bestow. But those who have at times heard arguments for the introduction or continuance of particular lines of study, and have also noted the results of the study, well know how wide, sometimes, the chasm is between theoretical educational values and actual accomplishments.

Whether or not a subject is imparting the intellectual endowments that it ought, depends wholly on how the teacher presents it and how the pupil applies himself to learn it. These "how's" may be such as to more than nullify all the good of which the subject is capable.

For this reason, it seems to me well, occasionally, to question the value of a subject that costs the schools so much in time and money as Latin does, and to try to ascertain whether the study is yielding in any way an adequate return.

What, then, is the educational value of Latin? Does it justify the cost; and if so, are the prevailing methods of teaching it reasonably productive of results?

These are fair questions, and although it has been done many times heretofore by abler men, I shall venture to discuss them once more.

What, then, are the valid reasons why Latin should hold so prominent a place in the high school course of studies?

1. It is one of the components of our mother tongue, and directly or through the French, has contributed a large part of our vocabulary.

Let me say, however, that this makes a knowledge of Latin more valuable to the etymologist than to the masses. Indeed, teaching pupils new English words through the medium of their Latin originals, may easily be carried too far. If we remember that one's first impression of a new word is the most persistent, it is easy to see the harm that would result

if pupils had first learned the underscored words in the following quotations by associating them with the meanings of the Latin words from which they are derived:—

“It's only *noble* to be good.”

“*Virtue* could see to do what virtue would
By her own radiant light.”

BRUTUS. Kneel not, gentle Portia.

PORTIA. I would not need if you were *gentle* Brutus.

It is a sound principle that children should make their first acquaintance with a common word of their own language by its use and meaning *in* that language. After a word in this way has become well sensed, it will be sometimes interesting and instructive, especially to scholarly people, to trace out its history and changes of meaning; indeed, there are few studies more fascinating.

What I have just said, however, applies only to common words. On the other hand, there is a large number of technical terms and phrases in professional and scientific vocabularies with which the opposite course is better. These are far more comprehensible to one who is acquainted with Latin than to one who is not, and are learned from that side more easily and correctly. This suggests my next point.

2. In the various departments of natural history it has been found necessary to adopt an international nomenclature to facilitate the identification of species by scientists of different nationalities, and this is almost wholly based on Latin. This makes a knowledge of Latin desirable, not merely for the expert, let me say, but for all who take any interest whatever in the study of birds, plants, insects or any phase of natural history. Even florists find it helpful.

I believe that this reason alone is sufficient to justify the place Latin holds in education.

3. The study of Latin is a great help to the comprehension of systematic grammar, and this, as a primary step in logic, is by no means unimportant to people whose language is so nearly grammarless as our own.

4. Greek and Roman mythology, geography, history, literature and art contribute extensively, as every one knows, to English literature and art, not alone by supplying themes for

song, story, or the artist's brush or chisel, but by supplying countless allusions and illustrations. Unless, therefore, one is familiar with Greek and Roman customs and antiquities, he lacks to a considerable extent the ability to appreciate a great deal of our own best literature.

It may be said that one may get all this information from books in the English language. He may, but will he, in a way to make it effective?

To be able to appreciate the point of an allusion or an illustration, one must be *very* familiar with the incident, or whatever it may be, to which it refers. Casual reading will not give to people who have not phenomenal memories this familiarity; it can come only from study and repetition. The discontinuance of Bible study is making scriptural allusions meaningless to many young people of today. To illustrate, the following passage from Longfellow's "Evangeline" was read to a company of people of different ages:—

And as she gazed from the window, she saw serenely the moon pass
Forth from the folds of a cloud, and one star follow her footsteps
As out of Abraham's tent young Ishmael followed with Hagar.

All the older persons present, but only a few of the younger, recalled the Bible incident alluded to in the last line, well enough to see its point, but after an explanation the others remembered that they had "read it" or "heard of it" before.

To those who have studied Latin for three or four years with any reasonable degree of interest, the beautiful mythology of Greece and Rome, compared with which most other folk lore is insignificant, becomes thoroughly familiar. So, too, the leading events of Greek and Roman history and much of that of other contemporary peoples. It is to this familiarity, it seems to me, that the cultural effects of Latin are mainly due.

5. The possibilities of the study of Latin in the way of mental discipline must not be overlooked. I have especially in mind that power of self-control which we call mental concentration and application. In common with all subjects rightly taught, Latin cultivates this power, but to a greater degree, it seems to me, than any other, unless it may be mathematics. In most other

subjects something can be done with the mind dawdling, but not so to any great extent in Latin. To get much out of this study the concentrated effort of the mind must be persistently applied. It is this or next to nothing.

6. The superior opportunity that the study of Latin furnishes for training in English, has been frequently pointed out by those who have argued for the right of Latin to a place in the high school course of studies. It seems to me the point is well taken, and that the opportunity is one that can hardly be overestimated.

Training of this kind may be obtained from the study of a modern language also, but not to the same degree. The sentence form and the words in French, for example, resemble the English too much and suggest the form and language of the translation; hence the pupil is not compelled to think and select and arrange as he is when trying to make a good English translation from Latin. The same is true of German, though not, perhaps, to the same extent. The grammar and arrangement — the whole genius of Latin, in fact, is so different from English that the pupil is forced to original effort, if he translates it well. In other words, the Latin gives him the thought, but not the language. A comparison of almost any passage of French or German with a passage of Latin will, I think, convince any one of the truth of this.

But if any further proof is necessary, let us consider the matter of arrangement. In Latin, the meaning — that is, the *exact* meaning — is affected by the arrangement of the words in the sentence. "*Delenda est Carthago*" expresses a sentiment quite different from *Carthago est delenda*; "*Nescit vox missa reverti*," from *Vox missa reverti nescit*; and "*Habetis, milites, quam petistis facultatem*," from *Quam facultatem petistis, milites, habetis*. To put these into English that will convey the exact thought of the Latin, requires study and gives a training that makes for skill in the use of language. The student, in the effort to express the thought correctly, must often select English words that are not given among the dictionary definitions of the Latin words to be translated, and he must even supply additional words, if necessary to give the emphasis that is involved in the position of the Latin word. To illustrate by the last two sen-

tences quoted above: "A remark made in public can NEVER be recalled; "You now HAVE, soldiers, the very *opportunity* that you have been seeking."

What an opportunity this is for training in English! If it were realized and utilized, there would be no need of so much special instruction in English as is now given, especially for pupils who take Latin.

That the majority of pupils, four out of five, I will say, can be educated up to such effort as has been suggested, I not only believe, but I know. The steps to it are plain, and each is highly educational in itself. The first is to lead the pupils to a full and clear comprehension of the meaning of the Latin, and the second is to keep them trying to express that meaning fully and accurately in English. It is not to be expected that perfection will be attained from the very start, but this training will avail in the end, if the pupils can be kept striving to do their best.

7. For, in a way, the same reason that underlies the contention in the preceding section, namely, the difference in construction and idiom between Latin and English, I believe it can be shown that there is at least a strong presumption in favor of the superiority of the former over either French or German, as a study making for brain development.

In the acquisition of one's mother tongue, in our case English, it establishes for itself in the brain certain centers and paths, so to speak, of activity; not entirely different ones, though, for every slight difference of idiom. Instead, expressions similar in form seem to fit themselves into the same channels and to occupy them in common, as is shown by the mannerisms of speech which every one acquires. In this same way, it seems to me, a new language, in proportion as it resembles the mother tongue, thrusts itself into the established centers and paths instead of making new ones. This would be truer of French than of German, but far truer of either of these languages than of Latin. This, differing so much as it does from the English, must to a large extent form new centers and break new paths for itself, thus enlarging the brain area given to language, rather than overloading the old one. This accounts for the greater difficulty in mastering it, — a greater

difficulty, it is true, but yielding a greater return. The arm that swings a sledge will acquire a stronger muscle than the one that only handles a yardstick, and there is every probability that a similar law is operative in respect to the brain. Of course it is not claimed that the study of Latin creates brain, but only that it develops it.

I believe, though I do not claim it to be fully demonstrated, that the brain development to be gotten from the study of a language other than our own, is in proportion to the difference between the two.

If these reasons for Latin as a high school study are sound, some of them carry with them suggestions as to how it should be taught and studied; for it does not follow that any treatment of the subject will secure the specified results. To illustrate, I have credited Latin with a high potentiality as a means of cultivating mental concentration, but I regret to say that I have seen Latin classes in which the pupils were getting less of this training than they could have gotten from playing jackstraws. Indeed, I believe that typewriting is doing more to cultivate mental concentration than Latin is, as taught in some of our high schools.

It remains to show in part what the prevailing practice in teaching Latin is, that one may judge whether or not it is yielding the results which entitle it to a place in the high school course of studies.

Let me say, first, that much more attention is given now than formerly to the English of the translation, by nearly all Latin teachers, and it is a cheering sign. Æneas no longer with impunity chides his mother for "snatching him through weapons and through fires," although in Cæsar there are people who still "respond to these *things*."

A criticism that may be made in the case of some teachers is, that they are too hasty in suggesting the better word or expression before the pupils have a chance to try, or before they understand the meaning of the Latin well enough to judge what the best English to express it would be.

As to the first and second reasons given above for the study of Latin, namely, that it has contributed so largely to our English vocabulary, and that it furnishes the international nomenclature

for certain sciences, little need be said. These advantages come as a natural consequence, and usually are of service at a period later than school life. They need not be considered as affecting methods of instruction, except, perhaps, in one respect, — the way in which the use of Latin in scientific nomenclature is affected by the Roman method of pronunciation. Usage requires that this nomenclature should be pronounced by the English method, and the same is true of all Latin and Greek proper names when they occur in an English translation or in any connection with English speech. This makes it necessary to learn two pronunciations of Latin, and these are not carried along together without some confusion. There are few, probably, who in a historical discussion, for example, would pronounce the *c*'s in Cicero or Cæsar like *k*, the *i* like long English *e*, etc.; but it is not unusual to hear such mistakes made with names like Lucius, Decius, Marius, etc., and with scientific names of birds, as *vireo olivaceus*, and of plants, as *viola sagittata* and *iris virginica*.

It may be further said of the Roman method of pronouncing Latin, that as compared with the English method, it makes progress in the beginning more slow; that it requires much time devoted to learning the quantities of vowels and syllables, that does not seem to aid in mastering the language as a vehicle of thought; and that pupils rarely acquire it accurately or so that they can read Latin easily. As an apparent consequence, the reading of Latin, especially of Virgil, is almost a lost art. There may be some, who read what I say about this, who will recall how Virgil classes, almost the first thing, used to learn to read the *Æneid* in a way to express the swing and flow of the rhythm; what a pleasure they took in this, and how it aided them to understand the poem. One rarely finds anything like this now. The reader generally trips on the pronunciation, loses the rhythm and makes the Latin sound like anything but poetry.

It may, I think, be doubted whether the intellectual and cultural values derived from pronouncing *c* like *k*, *v* like *w*, long *a* like *α* in father, etc., offset the disadvantages; but any further discussion of the matter would be useless.

As to the claim (3) that the study of Latin aids the comprehension of grammar in general and English grammar in

particular, nothing further need be said. This is also a matter that will take care of itself with any reasonably efficient method of instruction.

The same is true of the acquisition of a familiarity with Greek and Roman mythology, history, geography, etc., as a key to some of our own best literature. No pupil can read the usual portions of Cæsar, Cicero and Virgil with any satisfactory degree of understanding and interest, without acquiring all this.

The other benefits that I have claimed for the study of Latin, depend for fruition entirely upon the treatment of the subject. They are (5) the faculty of mental concentration, (6) training in English and (7) brain development.

In discussing the prevailing work of Latin classes with a view to considering whether it is efficacious to produce the desired results, let me make it plain, once for all, that what I shall have to say in regard to it does not apply to every Latin class in Massachusetts high schools,—to not more, perhaps, than five out of six. There is still enough good work in Latin, in schools here and there, to show that the poor work is needless.

Almost the first thing noticeable in a class of beginners (to pass over the defects of pronunciation) is the pupils' lack of comprehension of the meaning of the rules and definitions that they are learning,—if one can call it "learning." I have heard pupils reciting rules for "time when" "means and instrument," etc.,—rules that they had been on for weeks, and had been coaxed again and again to repeat, and yet, when asked to give illustrations of them, they looked as if they were amazed that they should be expected to do such a thing. Even when asked to illustrate the construction mentioned in the rule, by an English sentence, the result was usually much the same. At best, not more than one out of five could do it.

It seems to me that this is mainly the teacher's fault. All teachers know that pupils can learn rules and definitions without taking in their meanings (although it is the most difficult way to learn them). They know, too, that the best way to remedy this is to require the pupils to supplement the rules with oral illustrative examples; they know that this would be a good drill in word forms, grammar and pronunciation; and yet they neglect to do it, and the results are as I have described,

with a loss, of course, of the good to be derived from the study.

I believe that with every rule and definition an illustration, given orally, should be required. For this purpose two or three models might be memorized, but the pupils should be encouraged to give original illustrations as often as possible. This is not difficult, as I personally know from experience, if insisted upon from the start.

Another thing that impresses an observer of first-year instruction in Latin is, that although much time in the aggregate — nearly the whole recitation, in fact — is given to “drill,” the individual pupil gets but little. It is a cardinal principle of drill work that it should be so conducted that each pupil will get the maximum amount of practice in the minimum amount of time; but in first-year Latin this seems generally to be reversed.

To illustrate: for the first three or four months a large part of each recitation is spent on paradigms. The usual, in fact, the almost universal, usage is to give some noun or a tense of some verb, or whatever it may be, to each pupil, to be written on the blackboard. If the class is small, each pupil may have two or three. The quantity of every long syllable is to be marked. When all have finished and are seated, the teacher proceeds to read and correct the work, while the pupils sit passive and often indifferent. Those who have not had interest enough to learn the paradigms correctly at first do not have interest enough to pay much attention to the correcting. Some teachers attempt a little oral drill in connection with the translation of the Latin sentences in the lesson, but there is not much time for it, as it takes so long to get through with the “prepared” translation. This, — four or five minutes for each pupil in a recitation of forty minutes, — repeated four or five times a week, is everything in the way of drill, and this can hardly be called drill. A good many teachers do not seem to realize what drill is, and how much of it is necessary in learning a language.

As the year goes on, the paradigms give place to sentences. The pupils are supposed to have translated into Latin some English sentences in the text-book, and each pupil generally brings into recitation the Latin renderings, written on a sheet of paper.

There are suspicions that these are not always the products of original effort; but, be this as it may, each pupil *copies* one of these on the board. His Latin usually abounds in errors, — errors that have been made and corrected again and again, — and the teacher goes around and makes corrections as before.

If, instead of writing everything, more use was made of oral drill, the pupils could be given ten or twelve times the practice in composition and grammar, and at the same time be getting a training of the ear and facility in pronunciation.

I venture to suggest a way to do this, which I know from personal experience will produce good results; but any teacher who will take the problem in hand, will find, I am sure, other ways just as effective.

The English sentences to be turned into Latin, that are found in every good book for beginners, should be assigned for written work, as part of the pupils' preparation for the lesson following the one in which they occur. In the recitation let these first be disposed of by some time-saving device requiring not more than five or six minutes. If it takes longer than this, it should be regarded as an indication that the previous drill had not been efficient. Next in order call for whatever else has been assigned for preparation, disposing of it in the shortest time possible. Then, in connection with the translation of the Latin sentences given in the text-book, the drill should begin. Some of these sentences should be selected as models, and after one of them has been read and translated and attention called briefly to points of construction, let English sentences involving the same principles, be given to the class, to be turned orally into Latin. These should not be too difficult and their number should depend on circumstances. They should be made by the teacher on the moment and be new to the pupils.

Suppose, for example, the model is *Iuna dominæ viam monstrat*. Then the sentences to be turned into Latin may be such as: We show the strangers the road; The woman shows the roses to the girls; You (one) are showing the sailors the boat (*scapha*); I am pointing out the stars to the girls; The sailor is pointing out to us (*nobis*) the island, etc.

As each of these is given, addressed of course to the whole class, allow a moment or two, but not too long, for thought. Call

on some one, beginning usually with those most likely to make mistakes, to give it in Latin. If he gives it wrong, do not stop to correct, but simply remarking, "I noticed an error," call up another pupil, who must try in his rendering to make the correction. If he succeeds, that ends it, but if he doesn't, the teacher should merely say, "You made a mistake," or "You corrected Mary's mistakes, but made others;" or, better, ask "How many noticed mistakes?" and call upon a third pupil to try. Thus continue till the Latin is given correctly, or till every pupil has had a try. In the latter case, which will rarely happen, the teacher may give the correct rendering, and then promptly start another sentence.

This drill should provide for any special difficulties the pupils are likely to meet in writing the Latin to be assigned for the following day.

Teachers who have tried some such plan as this, have always reported good results. Most teachers, however, find it very difficult to deviate in the least from the text-book. They fail to understand that the very best text-book needs originality and resourcefulness on their part, to give it vitality. It should be added that whatever the plan of the drill may be, it should keep *all* the pupils active *all* the time.

But there is another defect in the prevailing paradigm work, whether oral or written, that seems to me more to be deprecated than even the scantiness of the drill. It will be found, I think, that pupils while reciting or writing paradigms, rarely associate with the forms, as they give them, any definite meaning, to say nothing of their *exact* meaning. For example, they have probably a general notion that *regere* means "to rule," but in giving, say, the imperfect of it, they have no distinct feeling of the act as going on in the past, or of the exact significance of the personal endings; hence they do not distinctly sense the difference between tenses. I believe that it is mainly for this reason that later, in translating or composing Latin, they are constantly confusing tenses and cases. In one instance, in turning into Latin an English sentence calling for the future of the verb *ducere*, only one pupil out of nine got the tense right. The others used the present and imperfect, and most of them the perfect on which they had just been drilling. In classes in

Cicero and Virgil one is continually hearing passages spoiled in translation because the pupils fail to appreciate tenses. In regard to cases of nouns and pronouns it is very much the same.

The defect would be more excusable were it not so easily corrected with most pupils, — with all, in fact, who ought to be studying Latin. The remedial device is very simple. In drilling on a tense, the emphasis should be placed on the separate persons, and the drill should be so conducted that with every form a pupil gives, its exact meaning will be closely associated.

Suppose, for example, the class is learning the present tense of the first conjugation. Instead of the paradigm it is better to have little sentences like the following arranged in groups of five or six, and written on the board or on drill charts for the pupils to turn into Latin: —

I sing, we sing, the girl sings, the girls sing, he sings, you (addressed to one pupil) sing, you (addressed to all the class) sing.

We praise the sailor, you (one) praise the sailor. He praises the sailor, you (all) praise the sailor. They praise the sailors. The boys praise the sailors.

The girl loves the doves. We love the doves. You (all) love the doves, you (one) love the doves, etc.

Repeat the sentences, rather than vary them too frequently. The drill should be brisk. The essential thing is to keep form and meaning closely associated.

Later, the paradigms will be found convenient as a way to systematize the verb forms for *some* purposes, and they will then be easily learned; but good teachers have again and again called attention to the unsatisfactory results of paradigm drill at the start. There is nothing, either cultural or intellectually nutritive, in burdening the memory with abstract Latin forms.

In what I have here said about drill on Latin forms, I may add that I have the support of good Latin teachers everywhere; but in calling attention to what seems to me one other defect in first-year Latin instruction, I regret to say that I cannot claim this support. I shall, however, venture to state the defect, as it seems to me to be a grave one, and those who have the patience to read what I say, can judge for themselves whether my criticism is well founded.

In a Latin sentence, as I have already stated, the position and the order of the words are matters of the greatest importance as affecting the thought. Any one who has not come to feel, in reading Latin, the effect of the word order, will scarcely be able to understand what he is reading, save in the rough. It is by the arrangement of the words that the language expresses the fine shadings of the thought, that are the essentials of all good literature.

Without going into a detailed presentation of the principles of Latin arrangement, I wish to mention two of the most conspicuous, in order to show how they affect the meaning.

The place for the most important or the most emphatic word or phrase is at or near the beginning of the sentence, and of the next to this, at the end. Of two words closely connected, — as an adjective modifying a noun, — the most important is placed first, and the meanings of the two different arrangements are very different. For example, *pulchri flores* means *pretty* flowers, as distinguished from implied homely ones; *flores pulchri* would sometimes mean *pretty flowers*, as distinguished from other pretty things, but generally this arrangement would reduce *pulchri* to a mere complimentary or generally recognized attribute of all flowers. Thus the Latins never said *immortales dei*, but *dei immortales*; for, while the latter is complimentary and reverential, the former would imply the shocking thought that there were gods not immortal.

The following sentence, from Cicero's first Tusculan Disputation, admirably shows the effect of arrangement on expression: —

Arbores seret diligens agricola quarum aspiciet baccam ipse numquam.

First observe the arrangement of the words in the phrase *diligens agricola*, indicating that it is the *industrious*, the *work-loving* farmer that will do this, and not the slothful or lazy one. If *diligens* followed *agricola* it would sink into a mere general compliment, and *agricola diligens* would imply that farmers are all industrious and would all do this, but that people of other occupations would not, — a change that would turn the beautiful thought of the sentence into nonsense.

Observe next that *arbores seret* begins the sentence, and that the adverb *numquam* occupies an emphatic place at the end. This so emphasizes *arbores* that in the translation a re-enforcing English word must be supplied to fully express the thought. To appreciate this, let me say that it would not be strange for any farmer to plant annuals, such as beans, cucumbers, etc., for he might reasonably expect to live to gather the fruits thereof; but in this sentence we are told that “An *industrious* farmer will plant *even trees* of which he *himself* will *never* see the fruit.”

Interpret by the same principles the following passage from Cicero's *De Senectute*, and, with a view to culture, to mental discipline, to ability to appreciate thought and to training in English, say whether or not this feature of the study of Latin ought entirely to give place to the mere mechanics of the language: —

Optissima omnino sunt, Scipio et Læli, arma senectutis artes exercitationesque virtutum.

I have said “entirely to give place” because about the only directions as to the arrangement of a Latin sentence that I ever hear teachers give their pupils is to “place the subject first and the verb last,” — a direction that is not supported by classical usage. It has become, however, a common practice of teachers to allow Latin sentences to be arranged in the English order, as in the following case: “The songs of birds were heard among the oaks” was written *Cantus avium erant auditus intus quercos*. *Quercos* was corrected to *quercus*, and *auditus* to *auditi*, but nothing was said about the arrangement, or whether *erant auditi* was the tense that the sense of the passage called for.

All this illustrates one thing that impresses itself upon one who studies the prevailing method (I am speaking, remember, of about five schools out of six) of teaching Latin: it is that a method of treating Latin that requires attention to exactness of thought is pretty sure to be set aside for a method more mechanical. I realize that this is a hard thing to say, but if it is true, it is time it was said.

In talking with teachers about this neglect of what constitutes

a vital feature of the language, I have been met with the statement that some one who presumed to speak on teaching Latin at some teachers' meeting or some summer school has advised the ignoring of sentence arrangement the first year. It was probably some one who had never tried it with beginners, but had assumed that this is a matter too difficult for them to grasp.

Speaking from the experience of fifteen or more years in teaching Latin to beginners, I can say what any teacher can confirm, who will give it a fair trial, — that there is nothing in Latin that pupils will grasp so readily as the significance of word order. But attention must be given to it from the very first lesson, when the pupil is asked to put his first Latin words together, if they are not more than two. This, followed up with the necessary suggestions and plenty of practice drill as each principle arises, is all that is needed. But it must be begun the *first* year, for with a year's training in bad habits of writing Latin, and with the greater complexity of the sentences with which they will have to do later, the pupils will find it far more difficult to sense the idea, and probably never will. If this is done the first year, the more intelligent work that they will be able to do in the years that follow, especially in reading Cicero, will be very noticeable.

The sentence drill of which I have previously spoken, furnishes an excellent opportunity for training pupils to feel the effects of word order. The teacher will frequently repeat an English sentence that the pupils had already turned into Latin, with a change of expression or emphasis, and require the pupils to meet it with the necessary rearrangement of their Latin.

Beginners in Latin should at the end of twenty to twenty-five weeks be able to reproduce from an English translation, given orally by the teacher, short Latin stories such as are to be found in the old Andrews or Gildersleeve Latin readers. And where they have been properly trained, I have known cases where nearly all the pupils, taking their cue from the expression of the teacher as he told the story, have reproduced it in essentially the original order, although they had never seen the original Latin. Of course they had been trained.

Of the Latin of the three following years (in five schools out of six), if one says anything, it must be that present conditions are very unsatisfactory. In what ratio the difficulty of the subject, the indifference of the pupils and the methods of the teacher should share responsibility for this, it would be hard to say, for it would be hard to say how far the last is responsible for the other two. There is no question, however, but that the pupil is responsible for a considerable part of the poor results. He often seems to have no vitalizing purpose, is averse to serious effort, and doesn't care, provided he is allowed to slide along. One boy in my hearing frankly expressed it. He was fitting for college, but had come to the teacher to protest against learning something that he had heard was not necessary. The teacher, on the other hand, considered it valuable. In the course of the discussion the young man remarked that he didn't "want to learn any more of the stuff than he had to."

Wherever the fault may be, an observer cannot but see that there is a wide difference between what the pupils are getting in the way of knowledge, mental discipline and culture, and what I have tried to show the study is capable of giving.

There are, let me say, exceptions to this. There are some pupils in almost every class, I should say an average of three out of ten, who are making praiseworthy efforts and are undoubtedly getting good out of the study, but they are badly handicapped by the other seven.

In the recitation, the reading of the Latin is decidedly rough. The reader stumbles and mispronounces. It is rare that one hears proper phrasing or expression. Indeed it is evident that the pupils are associating no meaning with the words they are uttering, — just as when they are reciting paradigms.

But if the reading of the Latin is bad, the translation of it is usually worse. Few pupils have very high ideas as to what it means to prepare a lesson, and their work of the first year seems to have given them little power. There usually seems to have been some effort on the part of the pupils to get the lesson, but apparently, when they meet something a little difficult (often near the beginning), instead of striving

for the exquisite satisfaction of overcoming it themselves, they seem to choose the less strenuous way of leaving it for the teacher to explain. This, of course, breaks the continuity of the thought, and causes more difficulties that are disposed of in the same way.

When it comes to recitation, the chances are that before the pupil has proceeded five words he is in a tangle. Just as likely as not he has taken a noun in the ablative or the genitive for the subject of a finite verb. Then a dialogue takes place between the teacher and him, something like this: "What case is so-and-so?" "The dative?" "No, it's the ablative." "Oh, yes." "Well, the ablative can't be the subject of a verb. What case is the subject of a verb?" "The nominative?" "Yes; see if you can find a nominative."

After some search the "nominative" is found. Then the teacher, in a hurry to get on, puts two or three words together for him and gets him started again, but a few words further on he will again go astray, and again in a similar way the teacher will get him back. And so the recitation goes on. Sometimes when I have asked the teacher if she was trying sight reading, I have gotten the answer that it was a "review of the preceding day's lesson." These, to be sure, are extreme cases, but in most of the five schools out of six of which I am speaking the difference is mainly one of degree.

The most disheartening thing about it all is that this has come apparently to be regarded by pupils as all that is expected, and by teachers as all that is possible.

Of the impressions that one gets from listening to Latin recitations, two or three deserve mention: —

First, the pupils do not seem to know how to study or else are disinclined to effort.

Second, they do not grasp clearly the meaning of what they are translating, — that is, they do not visualize it, — and so lose the connection. One striking illustration of this occurred with a class that was trying to translate the thirty-sixth chapter of the first book of Cæsar, beginning *Ad hæc Ariovistus respondit*. They were having difficulties which seemed to me needless, if they kept in mind what *hæc* referred to. On in-

quiry, it was discovered that not a pupil in the class could tell, although they had just finished a review reading of the preceding chapter, in which the demands of Cæsar were distinctly stated.

Third, the pupils have not been trained properly to put into English peculiar Latin idioms. Take, for example, Cicero's *Si quid est in me ingeni*. When this idiom first occurs, or in anticipation of its occurring, if it were brought into relation with the so-called dative of possession, and if it were pointed out to the pupils that when the thing possessed is a personal characteristic, in with the ablative was generally preferred, and that Cicero's thought was merely that expressed in English by the words "If I have any ability," and then if all this were clinched with proper drill, I do not believe pupils would translate that passage, *Jam vero quae tanta in ullo homine juventutis illecebra fuit, quanta in illo*, In Catilinam, iv, 4, thus: "Now in truth what so great enticement of youth was ever in any man as in that one," as one usually hears it translated.

Lastly, the pupils seem to think that each Latin word has an exact equivalent in English, by which it can always be translated. This is a notion that can easily be corrected if teachers take a little pains; and it must be corrected, if any skill in translation is ever to be acquired.

I have dwelt long, too long, perhaps, on the subject of Latin, but it is because I believe in Latin, when well taught, as a training for those who are able and willing to work to acquire it. I should deeply regret to see Latin lose its eminence as a means of liberal culture. If it ever does, the blame will rest solely with the teachers of Latin. Unless these arouse themselves, shake off their mechanical methods and put vitality into their instruction, Latin will not be long behind Greek in disappearing from the high school.

Of the condition of the instruction in modern languages I am glad to be able to speak in more complimentary terms. It seems to me that there is no department in the high school that sees so clearly the ends at which it should aim, and the methods by which to attain those ends, unless it is the commercial department, which is not included in this discussion.

In general, the teachers of modern languages are assertive, aspiring, conscious of their work and unsceptical as to its high educational value, — a little, perhaps, like the tanners who argued that there was nothing like leather for fortifying a city, but I do not like them the less for this. It is a stimulating spirit, and, as a result, I believe that the ratio of modern language teachers who are getting satisfactory results, is three or four times that in either the classical or the English departments. At the same time, it seems to me that this department suffers more than almost any one of the others from the weakness of college training, of which I have already spoken, for the rapidly growing demand for modern language teachers can be met to only a limited extent by those who have any advanced training other than what the college gives them. I shall say no more on this point, however, lest the impression might be given that I do not have a high opinion of the value of college work.

The department, on the other hand, is fortunate in its live, aggressive Association of Modern Language Teachers, that, with its two or three general meetings and several section meetings in the State each year, exercises a stimulative effect on the instruction everywhere. All departments of high school work have similar associations, but in my opinion there is no one of the others whose influence is so plainly apparent in the class room.

The most frequent defects that one sees in modern language instruction are: a faulty or even slovenly pronunciation; too little drill in oral composition; too much of the abstract paradigm drill, of which I have spoken in connection with Latin; and the usual carelessness about the English of translations. It is true that translations from French or German are never so conspicuously bad as they are from Latin, but for this very reason they may be more harmful. For example, it is more dangerous to a pupil's English to let him use "thankful" where the meaning calls for "grateful," than to use "old" where the meaning calls for "ancient." He will probably be sure to be cured of the latter mistake some time, but the former may become a habit.

English. — We seem to be nearing a change in the treatment of English and literature. The dissatisfaction over methods and results in these subjects, not only among teachers, but among all intelligent people of literary taste and judgment, has become so general and intense that it cannot be ignored much longer. Present usage has hardly a defender, while those who assert that it is doing harm, are numerous.

The New England Association of English Teachers was organized in 1901, and has held ever since two meetings, I think, a year. These meetings have been excellent. Listening to the sensible and able reports and papers read at them, one would be led to expect an immediate abandonment of the mistreatment of English and literature; but till within a year or two he would have searched in the schools in vain for evidence that the views expressed had exerted the slightest influence on teaching. This, however, can no longer be said. I have already seen in high schools some marked effects of the meeting in Springfield last November.

At that and other late meetings of the Association two things were emphasized that are fundamental to any improvement in the treatment of English, — the complete separation of composition work from literature and the necessity of teaching English in connection with every subject in the high school.

These views are not new. Individuals have urged them again and again, but their voices have not been heard as against the influence of the college requirements in English. I believe, however, that the voice of the Association and of other educational bodies will be heard, and that a change is coming that will practically give teachers of English a free hand so far as methods are concerned, and at the same time will put upon them full responsibility for results. This is as it should be; will they be equal to it?

The importance of teaching English in connection with all subjects in the high school, including itself, cannot be overestimated. The place — I am tempted to say the *only* place — to learn language is in connection with the acquisition of knowledge. What better opportunity can there be to acquire correctly the technical language of history or science or art, for

example, than in studying those subjects? What an opportunity the study of geometry furnishes for training in accuracy, clearness and terseness of speech!

But teachers will say that if they stop to correct errors of language they cannot get over the required ground. For one, I do not assent to this. I think it is just the other way. The "required ground" means more than a certain number of pages. It means a clear comprehension of the information recorded therein, and correct language aids in acquiring this. Indeed, correct language and clearness of thought mutually help each other, and make for greater progress in the end. I fear that the same disposition to hurry that prevents taking time to use correct language, also prevents taking time to get efficient comprehension of the thought, and that these two defects explain, to a great extent, the slow progress.

But, let me say, it is not necessary in a recitation to pick up every slip of the pupils. Begin with the most objectionable and most common errors, and as these are corrected, work on others; chief of all, keep pupils aware that there is such an offence as incorrect language, and striving to avoid it. This is, after all, the main thing.

Granting, then, that the practice of having high school pupils write essays on English masterpieces of literature or, worse still, try to reproduce them, is to cease, what should take its place?

Is it not true that not more than one out of twenty or thirty high school pupils will ever, after completing their schooling, write anything except letters or an occasional examination paper? Does not this indicate the field to which high school efforts in English composition should be pretty nearly confined? Letter writing gives opportunity for training in all the mechanical details of composition and is of itself a high art. Besides, it is safer than presumptuous essay or story writing.

Do we realize the danger in having most high school pupils try to write essays and stories, unless they are instructed by a teacher who is an able and severe literary critic?

I had an opportunity not long ago to look over some stories written by third-year high school pupils. The sentence, "A

number of boys were running towards a pond," had been given as a suggestion around which the stories must be constructed. Each pupil had selected his own subject, some of which were: "A Boy Drowned;" "The New Boat;" "How a Boy Caught a Trout." The stories all contained a number of incidents, apparently for the purpose of filling space, for many of them had no connection with anything that preceded or followed. For example, in the story, "How a Boy Caught a Trout," one of the incidents was this: "A man with his wife and two daughters was riding by in a carriage. His wife said, 'I wonder what those boys are running for?' The man said, 'I do not know. I hope nothing has happened.'"

This incident, like many others in the stories, had not the slightest connection with anything else. It would not have affected anything else in the story in the slightest if the man had not ridden by in a carriage, or if the girls had not been his daughters. Moreover, the narrative made no mention whatever of *how* the boy caught the trout, but chiefly told how people came to see it.

It is suggestive that these stories were written in connection with rhetoric, which the class was studying, and the topic at the time was unity. Furthermore, the teacher praised the stories, especially the long ones, highly, thus encouraging one of the worst faults of late in literature. This is not an isolated case.

It seems to me that if proper emphasis were laid on oral as well as written English, in connection with all the work of the school, half of the time now given to special instruction in English composition would suffice for all attainable ends, and time would be saved for the acquisition of valuable knowledge that would have a tendency to make the pupils feel the need of language.

The separation of composition and literature will furnish a golden opportunity to make the latter serve the educational purpose for which it is adapted. Will teachers rise to it?

It has been usual in the past to blame the questions in the papers set by the colleges for examinations in English for all the bad usage in the treatment of literature. I fear, however, if the truth were told, that the worst charge that can be urged

against those questions is that they helped a mechanical tendency, to which teachers themselves were too strongly inclined.

The colleges can easily make amends for all the harm they have done, if they *will teach* such of their students as intend to become teachers how to *read literature appreciatively*. This, I fear, they are not now doing.

I have seen college notebooks filled with memoranda of college instruction in literature. There was information as to the sources of Shakespeare's plots, their history, changes that he made in them, when the plays were written, and many other curious things, all interesting to, let us say, literary critics and specialists, but the student might have learned all this, and still not be able to read "Macbeth" or "King Lear" understandingly.

By "understandingly" or "appreciatively" I mean the ability to read that Prof. Henry Van Dyke had in mind when, speaking at a meeting of the New England Association of Teachers of English, two years ago, he used some such words as these: "One who has really learned how to read can see more in reading Shakespeare to himself than any theatre in the country can represent."

This power to read and see, not only material things mentioned, but the play of feelings and passions, the moral trend, the artistic relations, and, through all, the flow of the author's purpose, is what the pupils ought to acquire before leaving the high school; but they are not getting it, are not trained for it, and students in college seem not to be getting it. This will be evident, I think, if we take a glance at one or two of the ways of treating literature that one finds in our high schools.

One of these is to have pupils memorize the incidents of the story or drama, or whatever it may be they are studying, as they would learn, say, a history lesson; then, after one or two recitations on them, they are all written out in themes, in which "Julius Cæsar," "The Princess," or whatever it may be, appears as a bare schedule of happenings. It goes without saying that the teacher who treats literature in this way has himself no appreciation of its true function, and therefore cannot lead pupils to appreciate it. One illustration of this will suffice. Pupils who had read, recited and written out "Silas Marner" from beginning to end, sat as if dumbfounded at such ques-

tions as these: Why did the author create her hero out of a poor weaver, when she could have taken him from any station in life she chose? Why did she have him accused of stealing church funds, and unable to prove his innocence? Why did she create the Cass family as she did? That is, she could have represented the brothers as upright and honorable, or else the family as low and ignorant, — why did she not? Would it not have served as well her purposes? What are some of her purposes? etc. To such points as these the attention of the pupils had never once been called. It was a travesty on teaching literature.

A second device is to read, paragraph by paragraph, the piece that is being studied, and to select a "topic sentence" for each. This is a popular device for treating the "Spectator Papers," Macaulay's essays and Burke's "Speech on the Conciliation of the Colonies." It is so obviously absurd that it merits no further notice.

A third device is to use a masterpiece of literature as a place to find words to be looked up in the dictionary. This is the most innocent device of all, for the only harm it does is to waste time.

I repeat, therefore, that the college can do no greater service to the high school than to teach its students who are to become teachers what literature really is, and how to present it to high school boys and girls.

Among the changes that may come, it is possible that the number of books for study and reading prescribed by the colleges may be greatly enlarged, or perhaps the door thrown wide open. In either case the question may be asked, will the present high standard of literature for high school work be maintained?

There are already books of a distinctly lower order being published for the high school market. There are even those who are advocating easy current literature as more "interesting to the pupils."

It is to be hoped that this movement will receive little encouragement. It seems to me that the high school should be in better business than teaching boys and girls to read stories that they are likely to read to excess, without any stimulation.

It would seem that there are certain obvious principles that should govern the selection of literature for high school use.

First, it should be pure literature of a high standard.

Second, it should include poetry, romance, dramas, essays and orations.

Third, it should be selected with a view to cultivating in the pupils a liking for a better literature than they would otherwise be likely to take to.

It will be observed that with some odd exceptions most of the books prescribed by the college during the past eighteen years or so, conform very well to these principles. If they have failed to accomplish the desired results, it is not the fault of the literature.

One of these books, over which there has been a good deal of lament, is Burke's "Speech on the Conciliation of the Colonies;" yet for the purpose it is easily among the best five selections in the whole list. The complaint has been that pupils could not be interested in it. This is almost wholly the fault of the method of treatment. This speech can be so treated that almost every pupil will become enthusiastic over it, — so enthusiastic, indeed, that after two lessons, if it were left to themselves, they would vote to continue the reading. This can't be done, however, by keeping them making topic sentences for each paragraph.

If I were to make a suggestion as to the general character of the literature to be read hereafter, it would be that the number of novels be reduced, and that the quantity of oratorical literature be increased. I would retain Burke's speech, and add to it four other orations selected from speeches delivered on matters connected with important periods in the history of our own country: such as Webster's "Reply to Mr. Hayne," Geo. William Curtis's "Speech on the Spoils System," and one from the period preceding the Civil War, and one from the reconstruction period.

Let me say, in closing, that in my opinion the one thing that is now needed in the work in English, above all else, is a complete change in the treatment of literature. I feel hopeful that it is coming.

Respectfully submitted,

J. W. MACDONALD.

DECEMBER 31, 1908.

APPENDIX C.

**REPORT OF JULIUS E. WARREN,
AGENT OF THE BOARD.**

INDUSTRIAL EDUCATION IN THE PUBLIC SCHOOLS.

REPORT.

To the Board of Education.

The routine work of the year has included the usual inspection of schools; talks at teachers' meetings; consultations with committees and superintendents; the settlement of many local difficulties; the direction of 12 institutes, attended by 1,706 teachers and friends of education from 101 towns; and the conduct of 3 conferences of superintendents. A new feature of the institute work was the holding of 5 meetings at which demonstration lessons were given in cooking, pruning and grafting fruit trees, forestry, dairying, the applications of chemistry and physics to agriculture, and the feasibility of teaching these subjects in high schools.

I have also delivered 66 addresses on educational topics at public meetings held under the auspices of school committees, granges and other organizations.

INDUSTRIAL EDUCATION IN THE PUBLIC SCHOOLS.

I wish, first, to call attention to some of the industrial work now being done in the public schools; second, to state briefly the reasons for extending and broadening the work; and third, to show the wisdom, almost the necessity, of some measure of State help for this kind of education.

The Work Accomplished.

Dressmaking, cooking and various forms of manual training are now taught in the most progressive cities and large towns. Commercial education is also provided for in many places. Some municipalities maintain excellent mechanic arts or technical high schools, and a few support evening trade schools which are benefiting those now employed in the trades.

Within the past year Chicopee and Fitchburg have started very interesting and promising experiments in industrial education.

The Chicopee high school in the morning session gives to

those who choose to take the industrial work special courses in mathematics, drawing, science, English, history, the study of materials used, processes of manufacture, transportation and the economic, civic and social questions involved in production. In the afternoon these pupils work in a well-equipped shop connected with the high school building. Provision has been made for the teaching of pattern making, wood working, molding and the machinist's trade. The girls have excellent courses in the domestic arts. All of the instruction is given by skilled mechanics or highly trained teachers.

Fitchburg has adopted a modified form of the Cincinnati University plan.

Those who elect the industrial courses take academic instruction in the high school especially adapted to the needs of the machinist's trade, and do their shop work in private machine, electrical or metal-working establishments, receiving from 10 to 12½ cents an hour for their labor. The school oversight is extended to the shop, and is there supplemented by the teaching of practical workmen employed in the industry. The class of 22 is divided into two sections, one devoting a whole week to study in the high school, while the other is employed in the shop. The school and shop work thus alternating are continually in close relation to one another. The shop experience is of the most practical and valuable nature, for the pupils work in real shops, under the actual conditions in which the trade is carried on. They do real work, and help to make articles which must be standard in quality and of commercial value. They have the use of the latest and best tools and machinery kept in perfect order. They have just the material suited to the task in which they are engaged. They are taught the most effective methods and processes. They are not allowed to waste time or material. All of these conditions must prevail in every successfully managed private establishment.

No school shop can change machinery as frequently as the successful manufacturer is obliged to do, or always supply the proper materials, or dispose of the product in open market, or in other ways offer as favorable opportunities for training as the private shop.

This plan costs Fitchburg nothing. No buildings, tools, ma-

chinery or materials are supplied by the city. The industrial teaching conducted in the regular school building is no more expensive than that provided for other courses of study.

The pay makes the student apprentices nearly or quite self-supporting, and will enable many boys to master a trade and at the same time continue their high school training who would otherwise be obliged to terminate their formal education at the grammar school period to work for merely nominal compensation.

This plan may easily be adapted to the industries of any community. Several may be taught in the same school. In this case each trade would be carefully analyzed, and the elements or principles common to several might be taught to large groups of students.

Both the Chicopee and Fitchburg systems may be extended to the pupils below the high school. These schools are unlike the German industrial schools, which are designed to train humble workers in a stratified order of society. They are American and democratic. They are free to all, and may be easily adapted to the needs of each pupil and each community. They are in perfect harmony with the general system of public instruction, and are intimately and closely connected with the work of the common schools. They are heartily endorsed by laborers, manufacturers and educators in their respective cities.

In the four-year courses given at Fitchburg, trades will be so well taught that the graduates will be among the most skilled and highly paid workers in the trades. Their influence will tend to raise the wage scale and improve the condition of the worker intellectually and socially. Organized labor has never had and never will have anything to fear from any form of education in the public schools.

A combination of the Chicopee and Fitchburg methods, if supplemented by evening trade schools, would meet city needs admirably. The school shop could be used for those who, while preparing for college or taking general courses of study, might still wish to acquire skill in the use of tools and machinery and a general knowledge of the processes of manufacture. The private shops could be utilized by those who wish to master and follow a trade.

The Petersham agricultural high school is a good type of school for rural conditions. It is not a high school turned into an agricultural school, but a high school whose courses have been sufficiently agriculturalized to meet the requirements of country life. In this school the care and management of the greenhouse, market gardening, fruit growing, forestry, the judging, care and breeding of farm animals, wood and metal working and domestic science are effectively taught, without interfering with the purely academic work of the school. The two go hand in hand; each helps the other.

The summer sessions of the Massachusetts Agricultural College for the training of public school teachers have given an impetus to the school garden movement and to the teaching of elementary agriculture throughout the State. Over 200 teachers have attended each session of the school. This branch of the college was opened at the earnest request of the executive officers of the Board of Education. It therefore gives me pleasure to testify to the high order of the instruction offered and to the service which the college is rendering the schools of the Commonwealth. This institution is now training young men for high school teaching, and is constantly broadening its sphere of usefulness. The college might well be developed into a State university, the culmination of our free public school system. With the splendid grounds, fine buildings and strong corps of instructors now available, comparatively slight additional expense would be necessary.

Some of the State normal schools are preparing their students for social service by teaching sewing, mending, cooking and gardening of the most practical sort. Instruction of this character is now being given in some of the rural schools.

Reasons for extending and broadening this Work in the Public Schools.

1. Industrial education is of vital importance to the welfare of the Commonwealth. The fact should not be overlooked, however, that with our present system of education a general intelligence, a power of initiative, a superiority of industrial organization and a division and specialization of labor, has been developed which has made the manufactures of our State fully

equal in excellence, variety, extent and value to those of a similar area, anywhere. Nor is it fair to attribute German pre-eminence in the manufacture of dyes, chemicals and certain other commodities to her trade schools. The credit really is due to the thorough scientific research conducted in her universities. It is none the less certain that the industrial efficiency of our people would be increased by the right kind of trade instruction. This instruction should aim to secure some degree of skill in the use and care of tools and machinery, respect for manual labor, a knowledge of material and the processes of manufacture, habits of mental and physical activity, and for those who so desire a complete mastery of a trade.

2. The work already accomplished at Petersham, Fitchburg, Chicopee and evening trade schools conclusively proves that industrial education can be successfully carried on in the public schools.

3. It is economy to use existing agencies wherever practicable. The public now owns \$50,000,000 worth of school buildings, much costly apparatus and valuable lands. Much of this property is available for industrial instruction. The present teaching force should also be utilized as far as possible.

4. The leadership of the public schools is already recognized. This is a valuable asset in advancing the cause of industrial education. The success of the schools in general education has earned the confidence of the public; because of this confidence, the people will follow the public school officials where other leadership is rejected. This is well, for on the whole no body of men in the State is better fitted to direct industrial teaching than the local authorities of the public school system. A few years ago, farmers, manufacturers and the general public would have ridiculed the idea of teaching agriculture or a trade in school. Even now, after ten years' agitation, the public are not clamoring for industrial education. It has been difficult for the most intelligent and progressive school men to secure the adoption of their plans for the improvement of popular instruction. In nearly every case the demand for change has come not from the public, but from far-seeing educators. The schools have led, not followed, public sentiment.

Among the leaders who for many years have advocated industrial education may be mentioned Secretary George H. Martin, Hon. Carroll D. Wright and Dr. Thomas M. Balliet. Dr. Balliet, as superintendent of Springfield schools, introduced cooking, sewing, manual training and commercial subjects, established the first and one of the best technical high schools in the country, and started an evening trade school which is a model of its kind.

5. The public schools are the only means by which industrial education can be given in nearly 300 towns in the Commonwealth. The towns are too small and too heavily taxed to do more than support their public schools. Many of them could not do this without State aid.

There are two towns now taxing themselves more than \$10, 7 more than \$8, 30 more than \$7, 91 more than \$6 and 178 more than \$5 per thousand of their assessed valuation for the support of their public schools. The burden of taxation cannot be materially increased in these towns.

The Need of State Help.

A law giving State aid for the support of approved courses in agriculture, mechanic and domestic arts, would greatly stimulate industrial education. Such a law would be in harmony with the settled policy of the State in helping the smaller towns in the development and support of their schools. Aid is now given to more than two-thirds of the towns of the State. In these towns industrial, especially agricultural, education is the need of the hour.

Intensive cultivation of the soil is the hope of New England. The average yield per acre in the State is only \$20; yet some skilful farmers, by feeding the soil liberally and raising two or three crops a year, are getting produce worth from \$200 to \$1,000 an acre. Massachusetts soil is waiting to make trained men rich. We need an education which will dignify agriculture, reveal its possibilities and train men for its successful pursuit.

A small allowance from the State would enable the towns to provide this education in the simplest and most effective manner. It would not force anything new into the schools; it

would not drive anything good out of them; it would be permissive only. It is not expected that every town would at once take advantage of the provisions of such a law. The cost to the State would not exceed \$25,000 a year for the next three years. A small sum would do much good in many towns. A group of small towns might employ a specialist to take charge of industrial courses. In some communities a skilled mechanic might devote a few hours a week to instruction in wood and metal working, or to any other line; in other towns a woman might be secured who would teach household arts in addition to the usual academic work, or a capable man might be found who would combine agricultural, mathematical and science teaching. The cost of these or other methods of carrying on the work would be divided between the State and the town.

The State aid would be of great service where public sentiment favors industrial education, and where the school committee, superintendent and teachers are in sympathy with the movement.

The schools giving courses in agriculture will naturally lead many students to the Massachusetts Agricultural College. The public schools will give elementary and exceedingly practical courses, while the college will deal with the more scientific aspects of agriculture, and at the same time give its students a good general education. This affords an opportunity for every child in the Commonwealth to obtain free of expense a broad, liberal and exceedingly practical education. If such a law is enacted, the Board of Education would be responsible for the effective and economical administration of the law.

Respectfully submitted,

JULIUS E. WARREN.

DEC. 31, 1908.

APPENDIX D.

REPORT OF FREDERIC L. BURNHAM,

AGENT OF THE BOARD

FOR THE

PROMOTION OF MANUAL ARTS.

**SUPERVISION AND THE TEACHING OF THE MANUAL ARTS IN THE
HIGH SCHOOL.**

REPORT.

To the State Board of Education.

I submit herewith my second report, which is the thirtieth annual report of the Agent for the Promotion of Manual Arts.

Number of cities and towns visited,	119
Number of all-day visits to Normal Schools,	21
Number of High, Grammar, Primary Schools visited,	292

for the inspection of work already done, criticism of actual teaching, and giving of model lessons.

Number of addresses at Normal Schools,	18
Number of addresses at institutes,	20
Number of addresses to teachers,	34

the 72 addresses suited to the specific problems of the individual cities, towns, schools, where they were given.

Inevitably such work demands thousands of miles of day and night travel throughout the State, endlessly repeated interruption of regular habits of daily mental and physical life, a mass of routine correspondence, and numberless individual calls for expert criticism and advice, either in carefully detailed letters or in personal interviews.

Naturally also it leads to calls for public and private addresses, conference, discussion, on educational problems, both within the State itself and in other States.

Thirty Saturdays have been given to the Massachusetts Normal Art School, for which a course of lectures on Supervision has been prepared and delivered to the Public School Class, in connection with five hours of teaching the first half year and three hours of teaching the second half year at each weekly session.

The specific subjects and their methods of presentation in each grade of the Public Schools have been given in detail.

In addition to the 159 already employed, the following 10 towns have elected a Supervisor of Drawing this year for the

first time: Becket, Chester, Middlefield, Washington, Holden, Oakham, Paxton, Rutland, Provincetown, Wellfleet, — making a total of more than 200 Supervisors for Manual Arts who may use the advice of the Agent of the State Board.

SUPERVISION, AND THE TEACHING OF THE MANUAL ARTS IN THE HIGH SCHOOL.

The supervision of the Manual Arts requires persons who have attractive personality, a thorough education for the specific purpose and the indispensable power to teach.

The supervisors of Massachusetts have been carefully selected from the available supply. Where the power to teach is evident in a supervisor, occasionally the education is not sufficient; and the reverse is just as true.

Some uncertainty necessarily enters into the choice of a supervisor. Until this year the Massachusetts Normal Art School has not been able to give its students the opportunity to teach frequently enough under a critic; therefore, principal and faculty have not been able to acquire that definite knowledge of the student in respect to his power to discipline and to teach which should characterize every recommendation. The use of the Perkins Primary and the Prince Grammar Schools of Boston has now been granted to the Massachusetts Normal Art School for practice teaching under a critic. Such work will greatly lessen uncertainty of recommendation, which should be perfectly frank and truthful. The personality, aptitude, education, executive ability, power to take the initiative, to discipline, and to teach, need to be known, if the choice of a supervisor is to be successful.

When a person has been elected to a position, it is no more than natural that he should look to the agent for general guidance and expect that such guidance will adhere to definite underlying principles.

Knowing the principles, it is his business then to lay a foundation for his work, that is, study the local conditions, acquaint himself with local industries, and the home life of the children. He must then plan, on his own initiative, a course of study that shall meet the requirements of the State law and of his city or town.

As well as foundation principles in Drawing, for instance, are known, it is inexcusable to say (as inevitably happens), "I have worked one, two or more years to overcome the wrong work of my predecessor." Rather always to say, "I am doing, not undoing," is the right point of view. A supervisor who presents the superintendent with another man's outline, published as a general suggestion for a course of study, and cannot explain satisfactorily his own high school outline of work is not fit for recommendation. Of course the subject seems vague to his teachers, and his presentation to the children is not clear, if for explanation of his position a supervisor has merely a few stock phrases.

The fact that too few supervisors have reasons which they have found by first-hand analysis is serious. One confessed lately that he did not know why he was pursuing certain lines of work and had never thought what it might be doing for the children. He could do it and he did not see why the children could not. Either there are very few supervisors so inefficient, or many are unconscious of their lack, perhaps, even, in some cases, are unwilling to recognize their deficiencies.

To take again our specific instance, — the supervisor of Drawing who must both plan work for teachers and also actually teach children, we realize how complex is his problem.

The child comes first, and no theory should be followed which has not been approved by experience; but work should not continue without experiment, because "the child" is an abstraction which does not exist, and each supervisor must deal with a concrete set of children, for whose personal development the whole plan must be worked out.

Too often this same supervisor lacks appreciation of the necessity for business methods in his work. There must be an economical and adequate supply of materials, and careful planning should determine the kind and quantity for each grade and high school. (Not many supervisors do this well.) He should know the cost and the comparative values of materials, and co-operate with superintendent and committees, who are responsible for spending public funds. He should realize the value of his own and other people's time, and the need of prompt response to official or responsible requests for information.

Actual failures in class-room lessons usually come because too much dependence is put upon constant repetition of a given experience, in undefined hope that the children will discover some clue which will show them what to do another time. Instead, each lesson must be thoroughly understood by itself, and in its series, in order that its principle can be so presented to the children as to meet a definitely understood need of their mental growth.

In many lessons observed this year it was perfectly evident that even the object to be studied had not been decided upon before the teaching began.

In addition to the complete understanding of the idea to be presented to the children, there must be a quickness of imagination in selecting words to be spoken which shall actually mean the idea to the children's minds from their point of view.

To know the foundation principles upon which the teaching of the Manual Arts is based, and carefully to plan a course of study which shall meet the requirements of the different communities where they are taught, are absolutely indispensable. To carry out each department of the work for the purpose of developing the children demands strict adherence to business principles and thoroughly adequate teaching.

Thus far for the imperative present needs.

Now, on the other hand, as to actual hopeful conditions, all supervisors, without exception, are responding to an insistent demand for readjustment.

The willingness to work during vacations, however much it taxes their time and strength, to discover, if possible, exactly what are the problems of industrial education, and to train their hands in making objects of different materials, and also occasional exhibits of their own art work in water color, oil and the crafts, show a determination to keep in the front ranks professionally.

Their cheerfulness and frankness in discussion at educational meetings are marked, and there is a constantly growing desire to exhibit the actual work of the child as he does it. The pushing of a few children to suggest a falsely high average is rapidly disappearing.

Again, what better sign of advance can the times present as

a result of faithful supervision and teaching of the Manual Arts than the fact that an increasingly higher per cent. of the children draw creditably, and that the practice of these arts is not confined to the periods assigned for drawing and painting, but has become a useful part of the regular work of the school. Moreover, efficient work is making a recognized place for itself because it is forming a link between the school and practical life.

But the High School presents to the supervisor his most difficult problem, and the one which most needs solution, since it has received the least attention. For several years a growing feeling has found frank expression that there should be better and more practical work obtained in the High School. "Unable to go alone," is suggested by Secretary Martin's phrase "Able to go alone." The former phrase voices the judgment of many disappointed persons who expected High School graduates to possess trained faculties of use in their own special work.

Unquestionably there has been too little sympathy with the subject of the Manual Arts on the part of educators in and above the High School. Much blame for this condition lies on the shoulders of supervisors and teachers, who have not shown that the time allowed for their work, short as it is, can be practically used.

During the last year seven high school conferences were held at the Bridgewater, Hyannis, Lowell, North Adams, Salem, Westfield and Worcester normal schools for their respective drawing teachers, supervisors and for high school teachers of the Manual Arts.¹

At the conferences questions were given to each supervisor and teacher requiring explicit answers to be written and mailed after a week's deliberation. These questions and typical reports will be given on page 274. The discussions and reports prove that the work of the 266 High Schools in regard to teaching and equipment, courses of study and results, naturally divides into four classes: —

1. Where the work is done by special teachers of mechanical and Freehand Drawing in separate rooms, with distinctive material for each subject. These schools are in the larger cities

¹ An eighth conference was planned, for the Boston district, but proved impracticable.

and a few towns. Their courses of study vary considerably, and each one is fairly complete in itself. The time devoted to the work is longer by several hours than in other High Schools, and the subject is recognized to the extent that marks are given which in some cases count as points for graduation. A careful record of each pupil's progress not only keeps the student ambitious, but stimulates desire for a higher standard of attainment.

2. The second class can be broadly considered as composed of the smaller city and larger town schools, where no special teacher is employed and the Supervisor of Drawing plans and conducts the work. A well-equipped room is set aside for the Manual Arts, which is used for both Freehand and Mechanical Drawing. The classes are usually separate, and ninety minutes a week is given to each. The work done is credited as one-fifth a regular study. Frequently in this class of schools it becomes necessary to accommodate students from different grades in the High School at the same time, which, dividing the teacher's attention, effectively lessens his use.

3. A third class receives the attention of the Supervisor as teacher, but has no separate room and little material for the work. No grading is attempted, the classes being obliged to meet in the assembly room. One hour a week is the time allowed, and in general no mark is given.

4. The Supervisor has thirty-five minutes each week and in some cases has charge of both Music and Drawing. The four grades in the High School are taught simultaneously. The equipment is meager and no record of the work is kept.

Of the 266 High Schools in the State, 59 have been carefully selected by the Agent for his personal inspection during the past year, and the following is their classification as suggested above: —

First class, .	.	.	.	.	.	.	.	.	11
Second class,	.	.	.	.	.	.	.	.	15
Third class, .	.	.	.	.	.	.	.	.	23
Fourth class,	.	.	.	.	.	.	.	.	10

In 7 of the High Schools under classification 1 the work is elective; in 3, compulsory for the first and fourth years,

while in 1 it is compulsory for the entire course. The three other classifications show a somewhat similar variety, but the work is more generally elective, with the exception of the very small one-room High Schools, where it is either compulsory for all grades in one class or not taught at all.

That the great diversity and inequality of methods and of work may be realized, the following courses of study and responses to questions previously suggested are submitted.

Since the courses are not presented as models, but merely represent what is actually being done, the names of places and of supervisors have been withheld.

Questions with reference to the Manual Arts in the High School:—

1. Are the Manual Arts taught by the supervisor or a special teacher?
2. What are the physical conditions under which the work is done?
3. How much time is allowed per week for the work?
4. How are the classes divided?
5. What kinds of Manual Arts are taught?
6. Is the work compulsory or elective?
7. List of materials used?
8. Is credit given for the work and how much?
9. What is the course of study?
- Answers to the questions and courses of study follow.

High School Course under First Classification.

DISTRIBUTION OF TIME IN THE GENERAL COURSE.

FIRST TERM.									
September, .	.	.	.	Three weeks,	.	.	.	.	Six lessons.
October, .	.	.	.	Four weeks,	.	.	.	.	Eight lessons.
November, .	.	.	.	Four weeks,	.	.	.	.	Eight lessons.
December, .	.	.	.	Three weeks,	.	.	.	.	Six lessons.
January, .	.	.	.	Four weeks,	.	.	.	.	Eight lessons.
				<hr/>					
				Eighteen weeks.				<hr/>	
								Thirty-six lessons.	
SECOND TERM.									
February, .	.	.	.	Four weeks,	.	.	.	.	Eight lessons.
March, .	.	.	.	Four weeks,	.	.	.	.	Eight lessons.
April, .	.	.	.	Three weeks,	.	.	.	.	Six lessons.
May, .	.	.	.	Four weeks,	.	.	.	.	Eight lessons.
June, .	.	.	.	Three weeks,	.	.	.	.	Six lessons.
				<hr/>					
				Eighteen weeks.				<hr/>	
								Thirty-six lessons.	

Arranged for a thirty-six weeks' course in the ten months of each school year, and providing for seventy-two lessons per year, to be given in fifty-minute periods twice a week.

GENERAL COURSE.

FIRST YEAR.

Representation.

Nature Study. — Sprays, branches with masses of foliage, flowers, or fruit. Trees and landscape.

Familiar and Beautiful Objects. — Groups of fruit and vegetables. Groups of objects of pleasing form. Backgrounds.

Studies of Life. — Costume poses. Studies of action. Animals.

Composition. — Indoor and outdoor effects. Examples illustrating principles of composition in line and mass.

Expression. — Memory and imaginative drawing. Home work. Class criticisms. Outline. Light and dark. Light and shade. Color.

Decoration.

Nature Study. — Growth in plant form.

Historic Study. — Egyptian, Assyrian and Greek styles. Architecture and ornament.

Principles of Composition. — Space filling. Opposition, transition, and radiation. Area.

Color. — Polychromatic study. Harmony.

Creative Effort. — Surface designs. Principles gained from nature or historic study.

Expression. — Outline. Light and dark. Color.

Construction.

Principles of Working Drawings. — Single solids. Views and sections. Revolution on axes.

Developments and Patterns. — Problems of single solids.

Plane Geometry. — Tangents and polygons.

Building Construction. — Examples of framing.

Machine Details. — Working drawings of simple models.

Expression. — Use of instruments. Conventions. Inking. Lettering. Study of pictures.

SECOND YEAR.

Representation.

Nature Study. — Masses of foliage, flowers or fruit. Characteristics of tree growth. Typical landscapes.

Familiar and Beautiful Objects. — Groups of still life, fruit, vege-

tables and objects. Characteristic accessories and backgrounds. Drawing from casts.

Studies of Life.—Costume poses. Studies of action and grouping. Animals.

Composition.—Indoor and outdoor effects. Principles of composition in line, mass and tones.

Expression.—Memory and imaginative drawing. Home work. Class criticism. Outline. Light and dark. Light and shade. Color.

Decoration.

Nature Study.—Massing of plant form.

Historic Study.—Roman, Byzantine and Saracenic styles. Architecture and ornament.

Principles of Composition.—Space filling in line and mass. Dark and light. Tones.

Color.—Polychromatic study. Harmony.

Creative Effort.—Studies of form and decoration as applied to pottery, etc.

Expression.—Outline. Light and dark. Color.

Construction.

Principles of Working Drawings.—Simple intersections. Views and sections. Revolution on axes.

Developments and Patterns.—Problems of intersecting solids.

Plane Geometry.—Practical problems. Arches, ellipse, helix.

Building Construction.—Examples of details of construction.

Machine Details.—Working drawings of some shafting detail, as a coupling, pulley, or pillow-block.

Expression.—Line shading. Tinting.

Study of pictures.

THIRD YEAR.

Representation.

Nature Study.—Masses of foliage, flowers or fruit. Trees and typical landscape.

Familiar and Beautiful Objects.—Still life. Fruit, vegetables, or objects. Accessories and backgrounds. Drawing from casts.

Studies of Life.—Costume poses. Studies of action and grouping for illustration. Animals.

Composition.—Indoor and outdoor effects. Principles of composition in line, mass and tones.

Expression.—Memory and imaginative drawing. Home work. Class criticism. Outline. Light and dark. Light and shade. Color.

Decoration.

Nature Study. — Characteristic of trees and landscape.

Historic Study. — Romanesque, Gothic, Renaissance and modern styles. Architecture and ornament.

Principles of Composition. — Space filling. Mass, tones and color.

Color. — Polychromatic study. Harmony.

Creative Effort. — Studies for designs in relief.

Expression. — Outline. Light and dark. Tones. Color.

Construction.

Principles of Working Drawings. — Problems in projection of shadows.

Developments and Patterns. — Problems in sheet metal.

Plane Geometry. — Practical problems. Cycloids.

Building Construction. — Plans of schoolrooms or halls.

Machine Details. — Working drawings of valves, wrenches or details which may be brought to the class room.

Expression. — Tracings.

Study of pictures.

FOURTH YEAR.

Representation.

Nature Study. — Advanced study.

Familiar and Beautiful Objects. — Advanced study.

Studies of Life. — Costume groups for illustration. Animals.

Composition. — Indoor and outdoor effects. Arrangements in line, mass and tones to illustrate stated problems in composition.

Expression. — Memory and imaginative drawing. Home work. Class criticism. Outline. Light and dark. Light and shade. Color.

Decoration.

Nature Study. — Characteristic landscapes.

Historic Study. — The Renaissance. Schools of painting.

Principles of Composition. — Space filling. Landscapes in color tones.

Color. — Polychromatic study. Harmony for decorative application.

Creative Effort. — Designs for relief.

Expression. — Outline. Light and dark. Tones. Color.

Construction.

Principles of Working Drawings. — Problems in third and first angles.

Developments and Patterns. — Problems in sheet metal.

Plane Geometry. — Practical problems, epicycloids and hypocycloids.

Building Construction. — Elevation of school details, windows, doors or entrances from measure.

Machine Details. — Working drawings of details which may be brought to the classroom.

Expression. — Tracings. Blue-prints.

Study of pictures.

DISTRIBUTION OF TIME IN THE DECORATIVE COURSE (ABRIDGED).

FIRST TERM.					
September,	Three weeks,	. . . . .	Six lessons.		
October,	Four weeks,	. . . . .	Eight lessons.		
November,	Four weeks,	. . . . .	Eight lessons.		
December,	Three weeks,	. . . . .	Six lessons.		
January,	Four weeks,	. . . . .	Eight lessons.		
Eighteen weeks.			Thirty-six lessons.		

SECOND TERM.					
February,	Four weeks,	. . . . .	Eight lessons.		
March,	Four weeks,	. . . . .	Eight lessons.		
April,	Three weeks,	. . . . .	Six lessons.		
May,	Four weeks,	. . . . .	Eight lessons.		
June,	Three weeks,	. . . . .	Six lessons.		
Eighteen weeks.			Thirty-six lessons.		

Arranged for a thirty-six weeks' course in ten months of each school year, and providing for seventy-two lessons per year, to be given in fifty-minute periods twice a week.

DECORATIVE COURSE.

FIRST YEAR.

Nature Study. — Growth. Sprays of flowers, leaves or fruit. Plants, shrubs or trees. Figures, animals.

Historic Study. — Egyptian, Assyrian, and Greek styles. Characteristics of the national arts. Study of the lands and peoples. Architecture, ornament and sculpture. Investigation of constructive and ornamental methods. Growth, mass and arrangement.

Principles of Composition. — Studies of space filling in line. Opposition, transition and radiation. Studies of area in mass and color.

Color. — Polychromatic study. Color harmony. Color schemes of historic schools.

Creative Effort. — Surface designs illustrating principles of nature and historic study.

Expression. — Outline. Light and dark. Color.

Parallel Course in Representative Drawing. — Studies of familiar and beautiful objects. Groups, fruit, vegetables, or objects. Memory and imaginative drawing. Home sketches.

SECOND YEAR.

Nature Study. — Mass. Sprays or branches with leaves, flowers or fruit. Masses of foliage. Figures, animals.

Historic Study. — Roman, Byzantine and Saracenic styles. Characteristics of the national arts. Study of the lands and peoples. Architecture, ornament and sculpture. Investigation of constructive and ornamental methods. Growth, mass and arrangement.

Principles of Composition. — Studies of space filling in line and mass. Dark and light, tones and color.

Color. — Polychromatic study. Color harmony. Historic color schemes. Color studies for decorative efforts.

Creative Effort. — Studies of form and its decoration as applied to pottery, etc. Contour and curvature. Fitness.

Expression. — Outline. Light and dark. Color.

Parallel Course in Representative Drawing. — Studies of groups. Still life, fruit, vegetables, or objects. Characteristic accessories, backgrounds, etc. Drawing from casts. Memory and imaginative drawing. Home sketches. Class criticism.

THIRD YEAR.

Nature Study. — Foreground and foliage. Trees and landscape. Figures. Animals.

Historic Study. — Romanesque, Gothic, Renaissance and modern styles. Characteristics of the national arts. Study of the lands and peoples. Architecture, ornament and sculpture. Investigation of constructive and ornamental methods. Growth, mass and arrangement.

Principles of Composition. — Studies of space filling in line and mass. Dark and light, tones and color.

Color. — Polychromatic study. Color harmony. Studies of harmony for decorative efforts.

Creative Effort. — Studies for relief. Metal, stone or terra-cotta. Studies for wrought iron.

Expression. — Outline. Light and dark. Tones. Color.

Parallel Course in Representative Drawing. — Studies of groups. Still life, fruit vegetables or objects. Accessories, backgrounds, etc. Drawing from casts. Memory and imaginative drawing. Home sketches. Class criticism.

FOURTH YEAR.

Nature Study. — Decorative treatment of the human figure. Animals. Typical landscapes as backgrounds.

Historic Study. — The Renaissance. Development in different lands and nationalities. Great painters and their masterpieces. Study of composition and arrangement.

Principles of Composition. — Studies of space filling in line and mass. Figures in landscape. Color composition. Tones.

Color. — Polychromatic study. Color harmony. Studies of decorative harmony.

Creative Effort. — Advanced problems in surface, relief or designs for the round.

Expression. — Outline. Light and dark. Tones. Color.

Parallel Course in Representative Drawing. — Advanced study. Groups. Still life. Advanced cast drawing. Home work. Class criticism.

DISTRIBUTION OF TIME IN THE CONSTRUCTIVE COURSE
(ABRIDGED).

FIRST TERM.					
September,	Three weeks,	. . . .	. . . .	Six lessons.	
October,	Four weeks,	. . . .	. . . .	Eight lessons.	
November,	Four weeks,	. . . .	. . . .	Eight lessons.	
December,	Three weeks,	. . . .	. . . .	Six lessons.	
January,	Four weeks,	. . . .	. . . .	Eight lessons.	
Eighteen weeks.				Thirty-six lessons.	
SECOND TERM.					
February,	Four weeks,	. . . .	. . . .	Eight lessons.	
March,	Four weeks,	. . . .	. . . .	Eight lessons.	
April,	Three weeks,	. . . .	. . . .	Six lessons.	
May,	Four weeks,	. . . .	. . . .	Eight lessons.	
June,	Three weeks,	. . . .	. . . .	Six lessons.	
Eighteen weeks.				Thirty-six lessons.	

Arranged for a thirty-six weeks' course in ten months of each school year, and providing for seventy-two lessons per year, to be given in fifty-minute periods twice a week.

The distribution of time for drawing in the Mechanic Arts High School (unabridged course) is at present arranged upon a basis of five hours per week the first year, and two and a half hours per week during the second and third years.

CONSTRUCTIVE COURSE.

FIRST YEAR.

Descriptive and Plane Geometry. — Projections of single solids, three or more views in third angle. Revolution on various axes. Cutting planes and sections. Practical geometric problems. Tangents. Polygons.

Developments and Patterns. — Problems of single solids. Shapes of sections, elbows, etc.

Constructive Design. — Application of principles of design in studies for wood carving.

Building Construction. — Framing details of wooden house construction. Detail of first floor, second floor, attic floor and roof.

Machine Details. — Working drawings of tools, or builders' hardware.

Expression. — Use of instruments. Inking. Lettering.

Parallel Course in Representative Drawing. — Studies of familiar and beautiful objects. Groups. Home sketches. Studies of historic architecture and ornament. Characteristics of Egyptian, Assyrian and Greek styles.

SECOND YEAR.

Descriptive and Plane Geometry. — Projections of intersecting right solids, views in third angle. Revolution on axes. Planes and sections. Practical geometric problems. Applications to building construction, arches, windows and decoration of surface. Applications to machine design; ellipse, oval, helix and spirals.

Developments and Patterns. — Problems of warped and special surfaces.

Constructive Design. — Application of principles of design in studies for goblets, balustrades, vase forms, etc. Studies for wrought-iron design, grilles, gates, andirons, fire sets, etc.

Building Construction. — Details of wooden, brick or stone house construction. Doors, windows, foundations and chimneys.

Machine Details. — Bolts, nuts and screw threads. Pulleys.

Expression. — Line shading. Conventions. Tinting. Isometric representation.

Parallel Course in Representative Drawing. — Studies of familiar and beautiful objects. Groups. Home sketches. Drawing from casts. Perspective problems, furniture, interiors, etc. Studies of historic architecture and ornament. Characteristics of Roman, Byzantine and Saracenic styles.

THIRD YEAR.

Descriptive and Plane Geometry. — Projections of single and intersecting right solids in third and first angles. Projection of shadows.

Practical geometric problems. Applications to machine design; cycloid, epicycloid, hypocycloid and involute.

Developments and Patterns. — Problems of surfaces and the making of patterns to fit special conditions.

Constructive Design. — Application of principles of design in studies for castings, panels, reliefs, firebacks, etc.

Building Construction. — Plans and elevations of a two-story wooden dwelling house.

Machine Details. — Gearing. Cranks. Eccentrics. Cams. Selected details of machines; lathes, upright engine, dynamo, etc.

Expression. — Tracings. Blue-prints.

Parallel Course in Representative Drawing. — Studies of groups. Home sketches. Drawing from casts. Memory and imaginative drawing. Perspective problems. Studies of historic architecture and ornament. Characteristics of Romanesque, Gothic, Renaissance and modern styles.

FOURTH YEAR.

Descriptive and Plane Geometry. — Projections of single and intersecting solids, both right and oblique, in third and first angles. Projections of shadows. Advanced geometric problems.

Developments and Patterns. — Special problems in surface development.

Constructive Design. — Application of principles of design in studies for relief in stone or terra-cotta.

Building Construction. — Plumbing and drainage details. Heating and lighting problems.

Machine Details. — Complete details and assembly drawings from measurements from a lathe, upright drill, shaper, upright engine, dynamo, etc.

Expression. — Tracings. Blue-prints. Filing, labelling and checking systems.

Parallel Course in Representative Drawing. — Advanced study. Groups. Still life. Advanced cast drawing. Perspective problems. Studies of historic architecture and ornament. The Renaissance. Comparison of historic styles.

High School Course under Second Classification.

1. The supervisor teaches drawing in the High School.
2. Time, fourteen periods per week. One day, 8.30 to 1.30; two days, 8.30 to 11.45.
3. Four divisions of fourth-class pupils, four divisions of third-class pupils, three divisions of juniors, three divisions of seniors, one period per week for each division.
4. I teach both freehand and mechanical drawing. All boys have mechanical after the first year, and all girls freehand, unless they

express a preference for the other class of work. Same amount of time required for either course.

5. Drawing is compulsory for each of our 450 pupils throughout the four-year course.

6. Materials used: for freehand drawing — pencil, water color, charcoal, ink; for mechanical — pencil, ink; for design — water color, dyes (for stencilling on cloth), leather.

7. Credit given is the same as for any other one-period study, and is essential to graduation.

COURSE OF STUDY.

GIRLS.

First Year.

September and October. — Nature drawing in pencil. (1) Studies of details of selected plants (as nasturtium and hollyhock), including top and side view, section, etc., of flower, bud and seed-pod, and flat and foreshortened views of leaves. (2) Studies of sprays bearing flowers or berries.

November and December. — Mechanical drawing. (1) Geometric problems. (2) Construction of bonbon box or other object of cardboard or paper, finished with water color.

January to April. — Object drawing. (1) Review appearances of circles and straight lines. Make a sheet for each, consisting of dictated sketches and notes, and illustrative drawings clipped from magazines. (2) Outline pencil drawings from objects — large type solids, pottery, etc.

May and June. — Nature drawing. Studies of spring flowers.

Second Year.

September and October. — Nature drawing. Studies of flowers, fruit, etc., in pencil and water color.

November and December. — (1) Design for a border, using one of above studies for the motif. (2) Lettering. Make motto, finished with above border, or cover for school report.

January to April. — Object drawing, shaded in pencil.

May and June. — Flowers, in pencil or water color.

Third Year.

September to December. — (1) Fruit or flower sprays, arranged decoratively in panel, in three tones of gray (ink) or sepia pencil. (2) Lettering. Motto or school report.

January to June. — Drawings from casts of ornament or animal heads, shaded in charcoal. (Occasionally groups of objects in colored crayon.)

Fourth Year.

Design. — (1) Exercises in unit building. (2) Simple color scales. (3) Abstract units applied to surface covering, tile or plate border. Finished in water color, complementary or analogous coloring. (4) Stenciling. Design for a sofa pillow or table cover, applied to cloth with "Easy Dye." (5) Leather tooling. Penwiper, card case or purse. (Cloth and leather paid for by pupils.) (6) Design for graduation program.

*Boys.**First Year.*

September and October. — Same as for girls.

November to January. — Exercises in design. (1) Unit building. (2) Units used for border or surface, finished in water color. (3) Design for cover of school report, or note-book, with good lettering and simple decorative stamp.

February to June. — Same as for girls.

Second Year.

Mechanical drawing in pencil. (1) Geometric problems. (2) Projection of type solids. (Dictated work. Large classes.)

Third Year.

Working drawings in pencil. Views and sections of models, drawn to scale. (Individual work.)

Fourth Year.

Inking. Orthographic and isometric projection, joints, etc.

High School Course under Third Classification.

1. Do you teach drawing in high school? Yes.
2. How much time in all? Two days per week.
3. How do you divide the time? Teach five of the six forty-minute periods each day. Pupils elect freehand or mechanical or both, and are classified by years. May advance as fast as ability permits.
4. Is drawing elective or compulsory? Compulsory.
5. List of materials used. Drawing Kit No. 2, compasses, hard pencils, India ink, moist water colors, oil paints for stenciling, charcoal paper, onion skin, manilla paper, light weight water-color paper.
6. Is credit given for work? Yes. It does not count equal to other work. Low marks would not deprive pupils of honors. Marks go on record and are considered important by pupils.
7. High school course. Course not determined. Present supervisor began work in this town Sept. 1, 1907, and has been studying conditions. The work has been along following lines: —

A. FREEHAND.*First Year.*

Model drawing. Cylinder, cone below the eye and at an angle, rectangular objects at an angle.

Outline, shading. Chalk and pencil on dark paper.

Nature drawing. Flowers, pencil and water color, trees from windows and out of doors.

Design. Always emphasizing beauty in space relations, applied to stencil patterns for table covers and for outline stitch on sofa pillows.

Second Year.

Model drawing and outdoor drawing of buildings and trees. Shading with pencil. Design applied to sofa pillows and stenciled curtains.

Third Year.

Same as second, with more indoor models. Very little water color, flowers.

Fourth Year.

Drawing buildings from windows and out of doors.

Designs applied to lamp shades of Japanese paper and to tooled leather. Cast drawing, and still life, charcoal. The efforts at applied design, though crude in many cases, have been stimulating. Lettering has been studied in connection with menu cards, pennants, programs and posters.

B. MECHANICAL DRAWING.

"Notes for Mechanical Drawing," F. E. Mathewson, and "Mechanical Drawing," Anthony, are used in connection with this course.

First Year.

Use of T square and triangles. A few geometric problems needed in construction. Working drawings of simple objects, as table, book-case. Use of scale.

Second Year.

Use of T square and triangles. Principles of orthographic projection. Solids with axes perpendicular to horizontal plane, two views. Solids needing three views. Development of surfaces of prisms and cutting of prisms by planes. Development of pyramids when cut by a plane.

Third Year.

Same as second year. Cylinder and cone added.

Fourth Year.

Review principles of orthographic projection, use of scale, dimensions. Solids with axes perpendicular to horizontal plane. Pyramids, cylinders, cones, cut by planes. Development surface frustrums. Intersecting solids. Solids with axes at an angle to vertical plane. Drawings may be inked. Constant care in lettering.

8. What do you suggest as course for high school? Need more time to answer properly. The average boy should be able to make and read working drawings and letter; the average girl to use drawing whenever it will aid her in making or decorating useful and beautiful objects for herself, her home, her friends. Both should be trained to know harmonious color and led to desire it in all their surroundings. Something should be done to acquaint them with some example of good architecture, of great sculpture and paintings.

High School Course under Fourth Classification.

PRESENT CONDITIONS.

The classes are held in the main room. No continuous course has so far been possible.

Classes, two: (1) One class is composed of ninth-year students. The work done is general, — freehand, mechanical and design. (2) The other class is composed of second, third and fourth year students. The work done is mostly mechanical.

Time, one hour a week is allowed for each class.

The drawing is obligatory to all pupils except special students.

These exact conditions exist for the first time this year. I should say that the probable conditions next year will call for a modification of the present plans.

In one high school there is one class composed of all the grammar grade pupils and the four high school classes.

Thirty-five minutes a week is the time allowed in which to meet this problem.

About 200 students. Drawing period forty-five minutes, once a week. Only about 24 are able to take it (on account of conflicts). All classes in school may take it. The class room is a corner of the main room, in the farther corner of which is a class going on in some other study, and the remainder of the room is filled with students who are studying.

Much good work, to be sure, is done under existing conditions, but when it is realized that higher institutions, industries, trades and homes are expecting to feel more keenly the influence and benefit of the teaching of the Manual Arts, it will be seen

that such inequality of opportunity as is offered by our High Schools of today makes the attainment of a widespread general excellence in the Manual Arts impossible. The normal schools should be able to depend upon some certain standard of efficiency in this subject. The entrance examinations to the Normal Schools are now difficult enough to command respect for the Manual Arts, and the standard will be raised as rapidly as work in the State permits. Students who fail in the examinations should be conditioned, and be obliged to work off the conditions before graduation, if the schools fulfill their claim to be higher institutions.

There are many arguments in favor of at least two years of compulsory work in the Manual Arts in the High School, the first year for all students entering, and the fourth for those intending to go on to the Normal Schools or other higher institutions. It should also be possible for students to pursue a comprehensive, intelligently developed course in manual arts for four years if they so desire.

So few of the subdivisions of the subject under discussion are recognized in the curricula of the High Schools that a step toward their recognition must come first. Nearly two thirds of the high schools being under the third and fourth classifications gives force to the above statement.

Two methods of instruction prevail almost exclusively for the teaching of the Manual Arts in our High Schools: —

1. A short talk by the teacher, followed by a graphic record on paper by the student of what he sees as he looks at the objects placed for him to study.

In every High School the preliminary talk is explanatory or interrogative, as the case may require.

2. Dictation by the teacher to the pupils, or copying from drawings and plates by the students.

In a few very fortunate cases the teacher selects and guides the student through experiences which lead him to discover for himself the principles that govern his work.

Too frequent resort to dictation is unwise, especially as it fails to inspire the student with confidence. A greater variety of illustrative material and a more frequent use of legitimate

mechanical apparatus would give a wider opportunity for self-activity on the part of the student. If the work is directed along lines of more complete self-activity, it will grow faster.

It is largely the fault of Drawing teachers and their methods that the resulting work is not better. There are cases enough, however, where the right teacher is in charge, to show what can be done.

Instead of the attempt to prove that the Manual Arts are of value in so far as they assist other school work, it must be proved that in and for themselves they are worth knowing because they develop in the student those faculties, otherwise left dormant, which immediately fit him to act and to think independently and creatively in practical affairs of actual life.

THE AIMS OF MANUAL ARTS IN THE HIGH SCHOOL.

1. To teach the given subject so that it can be used freely at any time as a rough and ready means of independent expression.

2. To teach the subject so that it can be used for purposes demanding complete accuracy.

3. To discover or to develop in each pupil his first normal interest in "doing things," and to direct him into intelligent growth through the crafts.

4. To lay the foundation for taste by developing the perception of differences, distinctions and relations.

5. To teach Drawing (*i.e.*, Delineation) as the only universal language for self-expression and communication of ideas, common to all pupils whatever their racial inheritance, present situation and future occupation.

6. To teach, through the practice of design, the appreciation of its necessity, its utility and the possibility of its universal application.

Aim 1. — There is a difference between seeing and knowing what one sees. There is a difference between seeing and understanding what is seen. To draw freely, for instance, it is necessary to know and to understand the essential characteristics of a sufficient number and variety of objects which have been seen, and be able to suggest these characteristics and those of similar objects to the eye at will.

Aim 2. — Freedom is not inaccuracy, but suggestion is not detail. To draw accurately requires careful analysis for detail, classification of this detail, and rigid selection of all demanded for the purpose in hand.

Aim 3. — To discover to a child a wholly unsuspected love for “doing things,” and to quicken such activity, are the primary objects of teaching in developing pupils into efficient citizens. Such efficiency demands the habitual discrimination of worth from the lack of it, genuineness from sham, the love of work, ability to plan and work with materials independently, to appreciate skill, to buy sensibly and to use economically.

The crafts offer a practical means of developing just this necessary kind of intelligence, (*a*) because they can be carried on in the regular High School at moderate cost and without extra room, (*b*) because they train eye, hand and constructive thought in the processes actually needed in adult life.

Aim 4. — Children see obvious differences between classes of objects. Develop this power into ability to see differences between species within each class, between individuals within the species, and they are making mental distinctions of purposes for which differences exist, beginning to judge between things which may be used for the same purpose, as to which fits exactly into the desired result. Here begins realization that usefulness and lack of usefulness depend upon relations which are established. The result of such development is mental flexibility in instinctively selecting and combining details of the thing to be done, at the given place and time, whether for temporary or for permanent effect.

Aim 5. — To use a language one must know definitely what it can be used for and just how far it can be used in spite of its special limitations. The great use of Drawing for self-expression is Picture-writing, a pictorial record, that is, a record, in visual terms, of personal experiences, unless, indeed, the training in the lower grades has stunted the pupil's second normal interest, that of talking about what he is busy doing.

To use Drawing as a language for the communication of ideas is possible in three ways, — Object Drawing, Nature Drawing and Drafting. Each one of these divides into two

species, — drawing for suggestion and drawing for accurate detailed description. The first two general classes are free-hand; the third, Drafting, is divided into freehand and instrumental drawing, which deal respectively with suggestive and with accurately-scaled working drawings.

Drawing should be so taught that the pupil's mind, rather than being littered with vague impressions, is stored, through the eyes, with perfectly definite images. In this case the mental image is as available for use as the original object itself. Such drawing is Memory-drawing, and the most important aim of the work, because it results in ability to visualize and to reproduce objects and combinations of objects seen only with the mind, that is, Imaginative or Creative-drawing.

Design.

Aim 6. — Definition: "Design in the manual arts is composition, putting together of parts into visible wholes, that is, not only careful planning for some definite end, but also subordination of parts to a whole idea which shall be received by the mind through the sense of sight as a single complete experience without sequence of time and of mental process."

It divides as follows: —

1. Analysis of the historic use of ornament, that is, designed decoration and mere elaborate detail.

(a) Comparison of methods.

(b) History of evolution of means (motifs) employed.

2. Abstract problems for technique, in other words, facility of eye and mind.

3. Practical application in concrete cases.

(a) Home.

(b) School.

(c) Business.

The above is accomplished in two ways, by constructive design and applied ornament.

I. Constructive Design.

1. Three-dimension objects made in visible form.

2. Two-dimension objects made in visible shape.

- (a) Actual making of objects out of pieces.
- (b) Constructive decoration. (1) Applied by shapes¹ — outline, color mass. (2) Ornament applied in shape² — design.
- 3. Three-dimension forms seen through two-dimension shape.
 - (a) Landscape.
 - (b) Pose.
 - (c) Objects.
- Known form seen through surface design.

II. Ornament applied.

- 1. In design (see Constructive Design 2, (b) 2).
- 2. As design to be seen alone obliterating its background.
 - (a) Single ornament.
 - (b) Single design made of several ornaments.

The necessity for Design, the instinctive desire to get the whole idea of an object as clearly and quickly as possible, which is the chief function of the sense of sight.

In respect to utility, Design (1) in contrast with confusion, catches the eye more quickly; (2) holds the attention steadily; (3) gives the feeling of comfort and so of pleasure; (4) gives definite images and so definite ideas; (5) stays in the memory and creates a desire for repetition of the experience.

Not only is Design a possible element in all hand work, and the only intellectual one from making a paper envelope to building a house, but it is the fundamental principle beneath all forms of creative art, even to the subtlest of the Fine Arts. To start a mind in the practice and appreciation of Design opens the door to the whole world of creative imagination.

As Fine Arts is the term applied to the subtlest expression of creative intelligence in which the mental quality seems all but independent of physical means, Manual Arts is used as a convenient term for part of the mental field, Industrial Education, that is, of education by means of the facts and relations of industrial life, the daily doing of the world's work, the field of Industrial Training.

¹ Carving may be three dimensioned but looks two.

² The ornament may be three dimensioned but looks two.

In addition to Industrial Training, the training of hand and eye for technical skill, it demands direct mental education by introducing into all Handicraft or other Manual Training, bench, shop and machine, the intellectual element of Design. This same education element may also be used in Drafting, the one other branch of Industrial Training which, in teaching, is inevitably associated with the Crafts, since its technique is so closely allied with that of Drawing.

HANDICRAFTS FOR SCHOOL USE.

Drawing and painting: pen, pencil, brush, charcoal, crayon, paint.

Carving.

Modeling.

Embroidery.

Weaving: raffia, reed, string, yarns.

Object making: paper, cardboard, wood, metal, leather, fabrics.

At the conferences was suggested the following general outline for High School Courses in Manual Arts for Handicraft and Drafting, planned to meet the needs of various purposes:—

Required: first year for all students entering; fourth year for students preparing for Normal School.

Elective: Freehand, second, third and fourth years; Mechanical, second, third and fourth years.

FIRST YEAR.

Required.

A. Observation Drawing (Delineation).

I. Growth and formation: nature drawing, — foliage, flowers, etc.

Four weeks, two periods per week.

Talk by Supervisor on the use of the eye and hand technique.

B. Design I. Outline and color — mass shapes.

(a) Decoration: constructive, applied.

(b) Ornament: motifs from A.

(c) Arrangements of school grounds; arrangements of school-rooms.

(d) Arrangement of work: blackboard, written, geometric, etc.

(e) Drafting: freehand working drawing for concrete practical experiments in design of objects.

Fifteen weeks, two periods per week.

Talk by Supervisor on practical application in home problems.

- C. Observation Drawing (Delineation).
II. Construction: object drawing of geometric types and made objects.
Ten weeks, two periods per week.
Illustrative talk by Supervisor on necessity of Memory Drawing.
- D. Design II. Constructive for business purposes: pose, lettering, signs, advertising, posters, etc.
Eight weeks, two periods per week.
Talk by Supervisor on Design for practical business purposes.
Public or school library display of illustrative material, and free access to such publications as "Printing Art," etc., for analytic study of actual work.
- E. Picture Writing. } Such work should parallel all other work
F. Memory Drawing. } throughout the year and all subsequent years.

FOURTH YEAR.

[Required for students entering Normal Schools. Two or five lessons a week.]

- A. Observation Drawing I. (see First Year).
(a) Pencil. { 1. Paper. }
Chalk. { 2. Blackboard. } Six weeks.
(b) Color. { 1. Crayons. }
{ 2. Water color. } Four weeks.
- B. Color Theory. Six weeks.
- C. Freehand and instrumental Working Drawing. Eight weeks.
- D. Observation drawing II. (see First Year).
Pencil. { 1. Paper. }
Chalk. { 2. Blackboard. } Six weeks.
- E. Design worked out and applied in the Crafts. Six weeks.

SECOND YEAR.

Elective, either course.

Two periods a week, but if possible to count as a regular course, five periods a week.

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| <p>I. Freehand.</p> <p>A. Painting of fall foliage. Lecture by Supervisor, as in first year. Six weeks.</p> <p>B. Design I. In Handicraft for boys and for girls. Lecture. Twelve weeks.</p> | <p>II. Drafting (mechanical).</p> <p>A. Freehand Delineation.</p> <p>1. Object drawing of mechanical details. Four weeks.</p> <p>2. Design, lettering. Two weeks.</p> <p>3. Freehand Working Drawings. Two weeks.</p> <p>B. Instrumental Drawing.</p> <p>1. Geometric Problems. }
2. Projection. } Eight weeks.</p> |
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I. Freehand—*Con.*

C. Observation Drawing (Delineation). II. Construction (see First Year). Lecture. Nine weeks.

D. Design II. The Book: cover, title-page, headings and tail pieces, initial letters, spacings of subject-matter, relation of printed page to margins and indentations. Nine weeks.

Lectures on Historic Ornament.
Elective home reading.

II. Drafting (mechanical)—*Con.*

C. 1. Design—in a single problem in bench work (Manual Training).

2. Mechanical working drawing of completed object to scale.

3. Blue-print.

Ten weeks.

D. Bench work from blue-print carefully chosen by teacher as a problem in design. Ten weeks.

THIRD YEAR.

Elective, either course.

Two periods a week, but, if possible, to count as a regular course, five periods a week.

I. Freehand.

A. Observation Drawing. Accurate delineation and painting of foliage and flowers. Six weeks.

B. Design I. Color. Twelve weeks.

C. Observation Drawing. Construction. Nine weeks.

D. Design II. Practical problems in analysis.

1. Civic—buildings, bridges, city squares, town commons.

2. Landscape composition.

Nine weeks.

Lectures on History of Art.
Elective home reading.

II. Drafting.

A. Freehand Delineation.

1. Type solids, including intersections. Four weeks.

2. Design in Lettering. Two weeks.

3. Delineation of mechanical details, with intersections. Two weeks.

4. Laying of flat water color. One week.

B. Instrumental Drawing.

1. Projection.

2. Working Drawings to scale from freehand dimensioned sketches.

Ten weeks.

C. Design. In an original problem in bench work (Manual Training) (see Second Year). Nine weeks.

FOURTH YEAR.

Elective, either course.

Two periods a week, but, if possible, to count as a regular course, five periods a week.

I. Freehand.

- A. Study in light and shade for form, of groups of objects (still life) and of casts, with charcoal. Twelve weeks.
- B. Similar study of form in color medium. Twelve weeks.
- C. Design II. Freehand color study of a room or series of rooms for a simple dwelling house. Twelve weeks.

II. Drafting.

- A. A complete set of working drawings for a simple machine or more complicated bench problem. Eighteen weeks.
- B. A complete set of working drawings for a simple dwelling house. Eighteen weeks.

Respectfully submitted,

FREDERIC L. BURNHAM.

JAN. 1, 1909.

APPENDIX E.

INDUSTRIAL EDUCATION AND THE PUBLIC SCHOOLS.

**AN ADDRESS BEFORE THE MASSACHUSETTS TEACHERS'
ASSOCIATION, BOSTON, NOVEMBER 27, 1908,**

BY

**GEORGE H. MARTIN,
SECRETARY OF THE MASSACHUSETTS BOARD OF EDUCATION.**

INDUSTRIAL EDUCATION AND THE PUBLIC SCHOOLS.

Industrial education has become a popular theme. Inquiry, discussion and experiment are rife among all nations. The problems presented are not local or national; they are universal.

The form which the discussion has assumed in this country makes it imperative that public school people should have a share in it, for their interests are vitally concerned.

On one side are people declaring the public school system to be a failure. If this opinion becomes general, the public school will be supplanted and some new institution substituted.

Other people are saying that the public schools are partly right but they are misplacing the emphasis in education, over-emphasizing some things and neglecting others equally or more important. If this is true, public school work must be modified, and school people must change their view point and adopt new practices.

A third class affirms that the public schools are doing their legitimate work, that they should not attempt to cover the whole field of education, but that a new type of school is needed. They would leave the public school as it is, but would supplement it.

Personally, I believe that the public school should be both modified and supplemented, but not supplanted. The school system has not been and is not now a failure. It has done the work which was intended by its founders and its supporters, not ideally, perhaps, but as well as its limitations would allow.

Education always and everywhere has two ultimate purposes. It is to get children ready to go alone. This is the parent's view point. When a child comes into a home, the parent who thinks at all immediately begins to forecast its future. Going alone means a great many things, but most important of all it means self-support, — the ability to get a living.

The other purpose of education is to prepare children to do the world's work. This is the view point of the merchant who wants qualified salesmen and bookkeepers, of the manufacturer who wants spinners and weavers, of the builder who wants carpenters and masons and painters, of the farmer who wants milkers and mowers, of corporations who want foremen and superintendents. It is, moreover, the broader and more unselfish view point of the statesman, who sees in education the preparation for citizenship and the safeguard of civil rights.

But these ultimate ends of education have never been the immediate goal of the public schools. The schools of New England were not founded nor have they been maintained to fit directly for getting a living, nor have they had directly in mind the various forms of the world's work.

Their function has been a broader and a more fundamental one. The people have reasoned that, underneath all forms of productive labor, there must be a foundation of general intelligence such as schools properly taught and administered might furnish. They thought that special intelligence and special skill must have appropriate soil to grow in, that they must be rooted deep in trained powers of mind, powers of observation and of thought, of analysis and reasoning, and that the study and discipline of schools tended to supply and enrich this soil. They believed that the mind being made to know as truly as the body to eat, and to grow thereby, opportunities for acquiring knowledge should be offered; that the knowledge should be varied in form, dealing with the world of things and the world of men, so that the young might acquire breadth of view, that their horizons of thought might be extended, so that they might be able to bring to the solution of the problems of their own daily life as they arose a wisdom drawn from knowledge wider than their own experience could supply.

So they have put into the elementary schools instruction in the use of the universal tools of life, language, spoken and written, and numbers, — the so-called three R's, — and that universal language, drawing.

Second, they have opened doors into the world of fact and experience, — the world of the present, in geography, where and how men live, and the sort of world they live in, from which

they must get their living; the world of the past, in history, how men have lived and worked and suffered, and by it all have grown in knowledge, in wealth, in power, in learning and in liberty; their own bodies, and how to care for them, that they may be strong, healthful and fit for the service of the mind.

Not satisfied with doing so much, the people have undertaken to widen still further the range of knowledge and to strengthen still more the powers by means of the high schools. They have opened the doors still wider into the world of the present through study of those sciences which have made possible all modern social and industrial progress. They have made their students acquainted, through study of classic languages and history, with that more remote past, in which all modern western civilization has its roots. As the fields of human knowledge have widened through discovery and invention, the schools have extended the scope of their work, that the youth of each generation might drink out of living and flowing streams and not out of stagnant pools.

The people have believed that this was the way to secure those ultimate ends of education of which I have spoken. They had the fullest conviction that a generation of children and youth so trained would be abundantly able to get a living and to do the world's work. And they believed, too, that education of this sort was the most stable foundation on which to build up political institutions.

This was the doctrine which has been preached in New England for two hundred and fifty years, and which has inspired all the other States to imitation.

This was the burden of that famous address of Horace Mann, contained in his fifth report, on the "Effect of education on the worldly fortunes or estates of men." It is summed up in a single sentence: "Intelligence is the great money-maker, not by extortion but by production."

This was the meaning of the section in the Constitution of Massachusetts: —

Wisdom and knowledge, as well as virtue, diffused generally among the body of the people, being necessary for the preservation of their rights and liberties; and as these depend on spreading the opportunities and advantages of education in the various parts of the country, and

among the different orders of the people, it shall be the duty of legislatures and magistrates, in all future periods of this commonwealth, to cherish the interests of literature and the sciences, and all seminaries of them; especially the university at Cambridge, public schools and grammar schools in the towns; . . .

This view of the function of the school has led through all the generations to personal sacrifices by mothers and fathers and to burdensome taxation by communities for the sake of their boys and girls. Nor has all this been in vain. The results have justified the efforts and the convictions of the people have been proved to rest in truth.

The people of this country have in the past been able to get a living. The world's work in production and distribution has been done, and through successive crises in public affairs the intelligence of the people has guided them to safe issues.

In it all there has been presupposed some mental ability to start with and a will to use the means offered by the schools. Where either of these has been lacking, the schools have failed to show results, and they have always been lacking in some individuals. Every community in all the years has had its "ne'er-do-weels." Mrs. Stowe's Sam Lawson and Irving's Rip Van Winkle are types of men who have amused and provoked the good people of their day, but they have in the past been too few to cause anxiety and they have not been advertised as "products of the schools."

The view of education which the public schools have embodied was most tersely stated by John Stuart Mill in his famous inaugural address at the University of St. Andrews, in 1867:—

Education makes a man a more intelligent shoemaker, if that be his occupation, but not by teaching him how to make shoes; it does so by the mental exercise it gives and the habits it impresses.

Substitute for "shoemaker," farmer, carpenter, blacksmith, bookkeeper, milliner or cook, and the statement would still be true.

Mill's statement implicitly assumes that at some time, somewhere, by somebody, his man has been taught to make shoes. The education by which he became an *intelligent* shoemaker

has been superimposed upon another sort of teaching, viz., that by which he has become a shoemaker at all. For that specific teaching Mill suggests no provision. The same assumption has existed in all public school education, that the specific occupation by which the man is to earn his living is learned somewhere else than in school. The school is not to make the boy a workman, but it is to help him to become a more intelligent workman, and, therefore, presumptively a better workman, for a stupid and ignorant man cannot be a good workman in any occupation.

In the world's work of which I have spoken there are certain universal and fundamental elements. There are the homely duties of domestic life, and the simple productive industries by which men are fed and clothed and sheltered. The way in which these are done conditions the whole social fabric. The difference between savagery and the most highly developed civilization is measured by the degree of skill and intelligence with which food is raised and prepared and served, and clothing and homes made comfortable, beautiful and elegant.

It is an interesting and significant fact that no scheme of education of which we have record has made any provision for these essential elements of social well-being. Greek education trained the youth of Sparta in the use of arms, inured them to the dangers and hardships of military life, and fired them with soldierly ardor and ambition. The youth of Athens acquired grace and beauty of form, rhythm of motion, the art of persuasive speech, and perception of the true and the fit in music and literature and art.

Because we hear nothing of training in domestic duties and in craftsmanship, are we to assume that there was no such training? To such an assumption the Parthenon, on the one hand, and the transformation of Rome by the luxurious and refined manner of life of the later Greeks would be a sufficient answer.

Athenian and Spartan education was for citizens; the world's work was done by slaves. How they were trained we may learn from Hesiod's "Works and Days."

We come down the centuries and read of education in the Middle Ages. It is the education of noble youth for knight-hood. The world's work of the every-day sort is done by serfs;

the building and adorning of cathedrals and palaces by the craftsmen of the guilds. We note, too, that the work of the great educational reformers made no account of the training for housework or for crafts. Luther established schools for learning. Rousseau in his epoch-making treatise "Émile," describing the ideal boy for whose education he is to provide, begins with the declaration, "Émile shall be rich." Ascham wrote his "Schoolmaster" to show how boys might be taught Latin without beating, and Milton wrote his famous "Tractate" for gentlemen's sons.

So New England has but continued the thought and practice of all nations and times in providing for these fundamental social necessities outside of the scheme of formal education. How the girls learned to cook and sew and to become tidy housekeepers, and how the boys learned to become farmers and craftsmen has been told too often of late to need repeating here.

While the schools have gone on studying the education of the past and learning wisdom from the theory and practice of the more modern reformers, expanding and developing their work to make themselves more efficient agents for promoting that general intelligence which they conceived it their mission to foster, great social changes have been going on unheeded.

This is not the place to describe the social revolution caused by the discovery of the use of steam. Its phases are too many and too varied, though there is scarcely one of them that would not be germane to this discussion, for there is never a social change of any character that does not sooner or later reach to bless or blight the lives of children.

The root out of which all these changes have grown was the substituting of manufactured power for manual labor. From this came the change from tools to machines, from the home and small shop to the factory, from complete to divided and subdivided labor.

From these came the employment of women outside the home, and, most prolific of all changes in modifying the conditions of living, the change from rural and semi-rural to city life.

Added to all these came foreign immigration, before the native population had adjusted itself to the new conditions, bring-

ing people with an endless variety of strange languages, traditions, customs, standards of living, and, more serious still, bringing their private quarrels and their political hatreds, their superstitions, their crimes and their diseases. Following this, and partly because of it all, came the closing of those doors of opportunity in the undeveloped West which had stood wide open for the ambitious and enterprising youth of all the earlier generations.

While these changes have been going on, and because of them, wealth has increased beyond all earlier conceptions, often with dazzling rapidity and with little apparent effort. An ever-increasing number of people has been relieved from the necessity of toil, and an ever-increasing number of children from the opportunity and privilege of helping in the home.

Out of it all has come a changed attitude toward industry, and a widespread desire to gain the prizes of effort without the effort.

All these new features of social life have added enormously to the problems of the public school, and, shutting its eyes to all other problems but its own, it has set itself with earnest purpose and splendid energy to their solution. It has dealt with the masses of city children, deprived by city conditions of the two means by which children thrive, — work and play. It has grappled with the difficulties of foreign languages and with foreign ignorance and prejudice. What the public school has done and is still doing for the children of the immigrant forms one of the most splendid chapters in American history.

It has set up compulsory laws, and drawn and held by force great numbers of children whom parental greed would have forced into premature labor, and others whose small intelligence and vagrant instincts would have left outside the schoolhouse.

In all this work it has adhered religiously to its creed, — that its mission was to promote general intelligence, — and it has sought to create for new generations the same intellectual atmosphere in which the earlier generations grew up. It has resolutely persisted in furnishing for rich and poor alike, for the children of the immigrant as for the children of the native, for those who could look forward to extended educational oppor-

tunity and for those whose school life was short, the sort of education which all earlier ages had designed for "gentlemen's sons."

One of its latest efforts was to enrich the elementary school course with Latin, algebra and physics. Never was there a more absurd anachronism. The times called for bread and we offered a stone.

John Stuart Mill's shoemaker, having been taught somehow to make shoes, was to be made an intelligent shoemaker by education. But supposing he had never been taught to make shoes, what would his education have done for him? It might have made him an intelligent man, but he would not have been a shoemaker at all, and then where should his living come from?

This is exactly the condition in which modern school education finds itself, not only in this country but in all the civilized countries of the world, for modern conditions are the same everywhere, because the age of steam is a universal age.

While the schools have been trying to make shoemakers intelligent, nobody has made them shoemakers at all. The superstructure remains finer than ever before, but its foundation is gone. There are no slaves or serfs to perform the homely duties of domestic life and to carry on the productive industries, no guilds with their apprentice systems, no fathers and mothers and masters to initiate the young into the work by which they must earn their living.

This statement should not be taken too literally. It is intended for a generalization. Society is not left wholly without trained workers either in the home or in the shop. The bottom has not really fallen out; the vessel only leaks.

We are still fed and clothed and sheltered, perhaps better than any other people have ever been. There is no occasion to become hysterical, but only to discover the drift of the current and take precautions.

The philosophy of public education is not false; it is only incomplete. The practice of the schools is not wrong; it is only inadequate. Education will still make the shoemaker intelligent, but education must also undertake to make him a shoemaker.

The public must furnish the means of promoting the indus-

trial efficiency of all the children of the present generation, and it cannot begin too soon to formulate its plans. So far as this is a manufacturer's problem, the manufacturers can solve it in their own way, either alone, as so many are doing, or in co-operation with the public, as at Fitchburg. But it is primarily a social problem and society must solve it, and solve it through its public schools. The new work set for the public schools is not merely to make mechanics; it is to promote industrial efficiency in the community, for the sake of the individual worker and for the sake of the community as well.

It is of supreme importance that there be no division of education into education for culture (so-called) and education for industry. Such a distinction would be fatal to American society. It would lay the foundation for class divisions where they have never existed in our country, where more than anywhere else there has been absolute equality, both of duty and of opportunity. Education should be conceived of as being all for culture and all for industry.

Of all the elements which go to make a man or woman industrially efficient, technical skill looms up so large as to obscure a number of others no less important. Before discussing the means by which this may be obtained, allow me to call your attention to some of these others. I do it because I believe the industrial efficiency of the workers in any community could be greatly increased by public school effort without the expenditure of a single additional dollar.

Among these essential elements I name a command of English, a command of numbers and a command of drawing. These are as much tools of a trade as are the plane of the carpenter and the trowel of the mason. They are universal tools, necessary to the working in all trades.

I use the word "command" to signify their use as tools. The English for this purpose is not academic English, the English of the school reader and the school essay, but the simple, direct English, in which men at work give and take directions, in which they write orders and rules, which they use in correspondence and in contracts and specifications. A command of English means ability to read, to write and to speak such English as it is needed.

By a command of numbers is meant the ability to think numerically, and to make quickly and accurately the simple combinations of numbers, whole numbers and fractions, which are the tools alike of the cook, the dressmaker, the carpenter and the farmer. It includes an exact conception of the units of measure and of weight used in all industries, and ability to handle them readily as needed.

Children have to do many stunts in arithmetic without getting this command of numbers. Booker T. Washington, in his "Working with the Hands," tells of finding numbers of young men in the South who could do sums in bank discount but could not find out why their fathers lost money on every bale of cotton they raised.

By command of drawing is meant simply ability to represent, both by freehand and by instruments, the form and proportions of objects seen or remembered, or only conceived. I saw a table yesterday. I want one made like it. It looks like *that*. I know what kind of a table I want, but I have never seen one like it. It would look like *that*. Substitute for table any of the thousand and one objects of construction and use and you have my idea. I do not mean ability to make pretty pictures. Work of this sort done in the public schools would go far to disarm the criticism now so rife among practical men.

Beyond this, industrial efficiency would be promoted by acquiring a general knowledge of those industrial processes which form the largest part of the world's work. The elements of all these processes are simple and easily understood by children and easily practiced. The principles of the basic industry — agriculture — are delightfully simple and easily illustrated. The conditions of plant life and growth and reproduction, the relation to them of insect and other animal life, can be shown in every schoolroom, are now shown in many, but rarely carried over in thought to the industrial conditions which they represent in miniature. The elementary processes of all textile manufactures, spinning and weaving, too, are simple. Seen in the little in school, wherever the textile industry exists they may be seen also in the large in the factory.

Ideas of organization are needed by all who are engaged in

any part of the world's work. The advantages and the necessity of it should be taught when studying the various industrial processes, and those personal relations and obligations which organization calls for need to be emphasized.

One of the most general complaints made by employers of youth, especially of American youth, is that they do not know their place, are not willing to take directions, as some have phrased it, "are too bumptious." Industrial efficiency means willingness to work in a subordinate place as truly as military efficiency means willingness to serve as a private. In neither case does it preclude or chill ambition for advancement.

Knowledge of the materials used in the industries is another requisite. What they are, where they come from, how they are produced, how transported and marketed. Such knowledge is easily obtainable as to all the great staples, — wool, cotton, silk, flax, lumber, the metals and all the food products.

An important element of this study is the notion of cost. All employers of labor assert that apprentices are wasteful of material, not wilfully, but through ignorance. It would seem that, if the youth before entering any industry could be impressed by the number of operations involved, the distance transported, the people employed in the preparation of the material they handle, they would get some adequate idea of the cost, and be more economical in its use.

These are some of the intellectual elements that go to make a man or woman a useful worker under modern industrial conditions. I suspect that while I have been speaking you may have been saying to yourselves, "We are doing all this now." I know what you mean; but if you think so, you do not quite know what I mean. You are thinking of your nature study and your geography and your elementary science as well as of your reading and arithmetic and drawing. So am I, and I would not throw them away. I would think of them and present them and teach them, not as so many school studies used for school ends, but, looking outside and beyond the schoolroom, outside and beyond school life, I would see them all in the light and in the atmosphere of the home, the workroom and the field. They should be not the playthings of children, but the tools of

workmen, the means by which the children may learn to help, service being the end of it all. I think they would gain some in dignity in such a light, perhaps some in interest.

What has been said of the elementary schools is even more true of the high schools. With their palatial buildings, their finely equipped laboratories, their accomplished instructors, they are too costly to serve only the purpose of a more extended and refined scholarship, and a more absorbing cultivation of sports. Least of all should they create or minister to a select social class. Of all educational institutions, their motto should be *Noblesse oblige*. Having given them much, the public has a right to require much of them. They, too, should begin to look the world's work squarely in the face, not only the work of the office and the counting room, but the work of the shop and the mill.

The most striking feature of modern productive industry is the extent to which it has turned to practical use the advancing knowledge of the sciences and mathematics. Agriculture has been revolutionized just so far as it has made use of chemistry and biology and botany. In the manufacture of leather and paper and textiles and food products, and in the refining of metals, chemistry has wrought changes as great. In the manufacture and use of steam and electric power, physics has done a similar work. In the enormous development of engineering, science and the time-honored algebra and geometry have come to their fullest fruition.

Is it not possible, is it not necessary, that the windows of the high school should be thrown wide open to the light and air of this new industrial life? By turning their study of science and mathematics and some of their history into these new channels, the high schools would lose nothing of their dignity while adding immensely to their usefulness. I have no doubt that if the experts who now direct the work in these departments of our great city high schools should together undertake to work out this new problem, they would achieve splendid success.

There is a moral element without which there can be no real and permanent industrial efficiency. Unless the workman feels a sense of obligation to his employer, to the public and to himself to do the best work he is capable of doing, he is not a good

workman, no matter how much he knows of his trade and how skillful he can be.

Ask nine tenths, I might almost say ninety-nine hundredths, of the women who employ domestic labor, and a majority of men who employ workmen of any kind, and they will tell you that their most serious trouble is not that workmen do not know, it is that they do not care. This is the most deep-seated, the most pervasive, the most subtle evil in modern industrial life. It is a disease of the will and the conscience. To remedy it will take all the effort of the schools. But it will take more; it will tax the wisdom and the effort of the home and the church, and it will need the co-operation of the great organizations of labor, which should add to all their beneficent efforts for the workman this supreme sort of education. It will need, too, the example of employers of labor. Men in business who are ready at every opportunity to take unfair advantage of their competitors, executive officers of corporations who are occupied in their offices in preparing collusive bids for public or private work, can scarcely expect the workmen in their shops and yards to live up to the full demands of an enlightened and sensitive conscience.

Turning now to the purely technical side of industrial education, I believe the existing public school can be made the most effective agent for its promotion, and the most economical one.

On the side of woman's work, especially the domestic industries, the public school has shown what it may do in its departments of cooking and sewing. It has only to extend these to include on the one side a more thorough study of dietetics, the study of sanitary housekeeping or home hygiene and laundry work, and on the other side to machine sewing, dressmaking, embroidery and millinery, to cover the needs of society more than fairly well. Why may not all the work now done by such schools as the Manhattan and the Massachusetts Trade Schools for Girls be done for the same sort of girls under public school auspices? The experience of the public high schools in preparing girls directly for vocational work in bookkeeping and stenography has, on the whole, been so successful as to justify a wide enlargement of their vocational work.

Technical skill means knowledge of the tools of a trade and

of how to use them to the best advantage on the materials of the trade.

Here again, what the public school has done shows what it can do. It has taught to many boys the use of the tools of the cabinet maker and the metal worker, and it has shown to them the relation of drawing to these crafts. It has not done it for the sake of the crafts. It has expressly avoided all thought of the crafts. But this was because of the philosophy of education of which I have spoken. This work has been done to promote general brain activity by stimulating the motor centers, and done for the sake of general intelligence. It has been to aid in the school work, and not to aid directly in the world's work. But unconsciously, perhaps unwillingly had they known it, the advocates of manual training have been taking a long step toward trade training.

The question is often asked, "What is the difference between manual training and industrial education?" Manual training is not industrial education but is an element of it. Learning the difference between a jackplane and a smoothing plane, and when to use one and when the other, is the same process when done as a lesson in manual training in a school shop as when done by an apprentice to a carpenter. And the ability to make and read and work from a drawing is industrial education, whatever it is called.

Manual training, then, so far as it goes, is industrial education. If there were added in the school shops instruction in the calculation of the cost of material and labor, of the articles made, as might easily be done, if, as in the Eliot school in Jamaica Plain, under the direction of Mr. Frank M. Leavitt, articles of commercial value were made and the principle of divided labor applied, the manual training would simulate still further trade training, and would be a useful step towards it.

But the essential difference between manual training and industrial education remains. Industrial education on its technical side has for its motive the acquisition of skill in a particular trade for wage-earning purposes. The boy in school learns the use of the saw and the plane as he learns the use of the pen and the pencil for school purposes, and his ambition is aroused

to get good school marks. The boy in the shop learns the use of the same tools, learns to use them no better perhaps than the other, but he learns it and knows he is learning it and feels he is learning it so that he may become a carpenter, and build houses and earn good money. The feeling of a purpose is of vast importance in any department and in any period of life, but never of so much importance as when it is just stirring and crystalizing in adolescent youth. This, then, is the time for specific trade instruction for wage-earning ends.

I said at the outset that I believed the public school work should be both modified and supplemented. I have tried to show how it might be modified to meet modern industrial and social conditions without changing its nature and without adding to its cost. For specific trade instruction there are needed supplementary departments of existing schools or supplementary schools, perhaps both.

In every grammar school district in the larger cities there are enough boys who must go to work early, or who want to go, and who now drift into comparatively unremunerative and non-educative employment, making a business of the mere chores of business, to form a class or school by themselves, where they might in one year or two, under appropriate shop conditions of discipline and instruction, learn the elements of some trade or trades. This would be in the nature of a pre-apprenticeship school. Its boys could enter on their work as apprentices at an advanced point as to skill and wages. I see no reason why such schools might not be a part of the public school machinery; in fact, there is every reason why they should be.

In many rural high schools there might be, and I believe should be, established courses in agriculture, using land owned or leased for the purpose, co-operating with the farmers of the community. These courses should be the dominant ones in such schools. They should be broad, scientific, scholarly and supremely practical.

In high schools of towns or cities of a single dominant industry, technical departments should be established in co-operation with the manufacturers, — departments co-ordinate in dignity and scholarly spirit with other departments. In large cities,

with more varied industries, special polytechnic high schools should be established, covering such ground as the local needs might suggest.

Along such lines, in my opinion, public education is destined to move in the near future. We are living in a new epoch, and social forces will, with us or in spite of us, shape the education of its youth to meet its present needs.

But I do not believe that those forces will be blind to the continued and perpetual need of such work as the public schools have been and are now doing. While that work is not designed to add directly to the vocational efficiency of its students, while it does not consider itself responsible greatly for their ability to get a living, it does undertake to make their life worth living. There is some danger that over-enthusiastic friends of industrial education may weaken the faith of the people in the public schools and in their work. There is a class of employers of labor who are advocating industrial education, meaning by it the narrowest kind of trade skill, who would reduce all other schooling to a minimum. These people are looking for better machines, not for a high type of men and women. Such demands are to be resisted. Nothing could be more mischievous. American society will never outgrow the need of that general intelligence which the schools and colleges have furnished.

No man, however skilled in his vocation, but will need, and need in proportion to his skill, the refining and humanizing influences which come from study. The more highly developed the country becomes as a great industrial organization, the larger the earnings; and the more the leisure of the people, the more will be the need of a love of books and a love of nature and a love of art and a love of service, which the schools are trying to foster.

So long as the country opens its doors to foreigners the schools will need to do their transforming work. The obligation imposed upon the president and professors in Harvard College, upon the preceptors of academies and upon all instructors of youth by the Massachusetts Legislature of 1789, to use their best endeavors to impress upon the minds of children and youth committed to their care "the principles of piety and justice and a sacred regard for truth, love of their country, humanity

and universal benevolence, sobriety, industry and frugality, chastity, moderation and temperance," because these are the basis of a republican government, will not be lessened because the men and women are trained to earn more money and earn it sooner.

I have quoted from Horace Mann's report on the relation of education to money-making. But this was not, in Mr. Mann's mind, the supreme end of education. In the closing paragraph of this report he says: —

But notwithstanding all I have said of the value of education in a pecuniary sense, and of its power to improve and elevate the outward domestic and social condition of all men, yet in closing this report I should do injustice to my feelings did I abstain from declaring that, to my own mind, this tribute to its worth, however well deserved, is still the faintest note of praise which can be uttered in honor of so noble a theme; and that, however deserving of attention may be the *economical* view of the subject which I have endeavored to present, yet it is one that dwindles into insignificance when compared with those loftier and more sacred attributes of the cause, which have the power of converting material wealth into spiritual well-being, and of giving to its possessor lordship and sovereignty, alike over the temptations of adversity and the still more dangerous seducements of prosperity, and which — so far as human agency is concerned — must be looked to for the establishment of peace and righteousness upon earth, and for the enjoyment of glory and happiness in heaven.

The people of the United States have forced upon them a more complicated and difficult task in education than has ever confronted any other people. We have three ends to strive for, — technical skill, general intelligence, with that refinement of thought and feeling and speech which goes by the name of culture, and a sense of civic obligation which must underlie all successful popular government. The Greeks developed the feeling of civic obligation and refined culture to a supreme degree, but technical skill was possessed only by slaves.

The technical skill of the Middle Ages has filled Europe with masterpieces of craftsmanship in its museums and public buildings, but there was little refinement, and the highest form of civic sense consisted in loyalty to a guild or to a city. In the countries of Europe which are now developing systems of technical instruction so rapidly, that combination of individual

freedom with obedience to law which we are trying to secure is not a heritage, and is not the mission of the school.

America has taught the world many lessons. If it can show how to create out of the diverse elements of its population a people skilled in all the arts of industry, enjoying and appreciating the fruits of learning, and with honesty and wisdom shaping and guiding their own political affairs, it will awaken new admiration, will provoke to new imitation and will put the world under new obligation.

To this work the times are calling the people, and especially the school people of the country. I have tried to point out the new view points which we must occupy. Industrial education is not to be brought in by the blowing of horns, but by the patient, wise and co-operative effort of all social forces.

APPENDIX F.

REPORT OF VISITS TO NORMAL SCHOOLS
IN OTHER STATES,

BY

JOHN G. THOMPSON,
PRINCIPAL, STATE NORMAL SCHOOL, FITCHBURG, MASS.

REPORT OF VISITS TO NORMAL SCHOOLS IN OTHER STATES.

Through the courtesy and by the direction of the State Board of Education I spent a month, twenty-one days in May and nine days in October and November, 1908, in visiting normal schools in other States. At the suggestion of the secretary, I studied in particular this question: How and to what extent are children used in the preparation of teachers? I visited the following schools in the order named: State normal schools at Terre Haute, Ind., Charleston, Normal and DeKalb, Ill.; the city normal school at Chicago; State normal schools at Ypsilanti, Mich., and Buffalo, N. Y., the city normal school at Rochester, N. Y., State normal schools at Plattsburg and Potsdam, N. Y.; the city normal school at Philadelphia; State normal schools at West Chester, Pa., and Montclair, N. J.; the city normal school at Brooklyn, N. Y.

SOME GENERAL IMPRESSIONS.

The meaning of "normal school" varies in different States. In many sections of the country it signifies an institution that fits students to teach by giving them the general education required, together with as much professional training as the length of the course allows. Such institutions are dominated by college and university ideals, and many of them have legislative authority to grant college degrees of B.A., B.S., and sometimes others. It was at such an institution, one of the largest, that I was informed by the head of the department of observation and practice, as we visited the practice schools, "We make no attempt to develop any skill in teaching. We simply let the student walk around the teaching process and look at it." The normal school, wherever situated, adapts its work to the needs of the community. If most of its students

need academic instruction, this is given, for it must precede professional study.

In localities having well-developed school systems, with opportunities for high school education preceding the normal school, there is a different emphasis, — the aim being to develop skill in teaching. Such schools are professional schools. They require for admission a knowledge of the subject-matter which is to be taught in the grades below the high school, together with a certain maturity and culture represented by graduation from a good high school. They make it their business to teach the principles of education as derived from experience and from science, to apply these principles to the subject-matter to be taught, to let their students see these principles in every-day use in the schoolroom and finally put them into practice there themselves.

The aim of these schools is not to give a general education or a broader culture, but to develop skill in teaching, just as the aim of medical schools is to develop skill in healing. They exist in the most fully developed form in the large cities — Chicago, Milwaukee, Rochester, N. Y., Providence, R. I., Philadelphia and New York, to mention those that I have visited — and in suburban communities where the school systems are well developed, as at DeKalb, Ill., and Montclair, N. J. This distinction between the two classes of schools, both of which are called normal schools, must not be forgotten in considering the work of the Massachusetts normal schools in the light of what is being done elsewhere.

The large number of male students in normal schools that are not strictly professional schools and the small number in those that limit their scope to the professional preparation of teachers for grades below the high school is noticeable. Schools of the first class are situated in the less densely populated, less developed sections of the country. Here there are many one-room rural schools in which young men are employed as teachers. In Indiana and elsewhere a certificate to teach such a school does not require as long a preparation as one to teach in a graded city school. In Massachusetts these one-room school buildings, formerly very numerous, have decreased in numbers until to-day they are attended by less than 5 per cent. of the pupils in the

State. Returns from every town and city in the State place the number of these schools at 879 — 161 of them reporting an attendance of 10 pupils or less — with teachers' salaries ranging as low as \$7 a week, and in some cases even lower.

A separation of theory and practice is the rule in schools of both classes. Teachers of subjects in the normal school usually have nothing to do with children in the practice schools. These teachers often teach "special method" in their respective subjects, but even then do not come directly into touch with children. In theory this was defended at only one school, but in practice any other arrangement was declared by nearly all to be well-nigh impossible. I was informed that normal teachers do not like to work with children and that this disinclination grows with length of service. One normal principal remarked that some of his teachers had not "seen" a child in ten years. Teachers of psychology and child study teach from texts and by lectures, and do not use children even for observation. At one school a system of observation in connection with this department is being planned. At another I learned that the idea of using children in connection with the teaching of child psychology is only a fad, — as I remember was once the idea of using chemicals in connection with the teaching of chemistry. We have to-day our "Fourteen Weeks in Child Study" as we used to have our "Fourteen Weeks in Chemistry." The latter required no laboratory; the former requires no children.

There is a growing tendency to add to the broadening cultural influences of the schools by securing stimulating, inspiring men and women for courses of lectures and readings, and by giving the students frequent opportunities to listen to good music. "The salary of one teacher should be spent for itinerant teachers" was one form in which the idea was expressed. Magnificent auditoriums have been provided in the new normal school buildings in Illinois, — the interior decoration alone of that at Macomb having cost, I was informed, nearly \$40,000. The day I visited one of the Pennsylvania normal schools the principal had been trying to secure a famous singer for a recital at the school and had only given up the project because her charge was \$1,000.

SCHOOLS FOR OBSERVATION AND PRACTICE.

The term "model schools," applied to schools connected with a normal school and used in the training of teachers, expressed the original purpose of these schools. They were to serve as models, to be looked at but not to be taught by normal students. They were like the objects in public museums, either under glass or bearing the tag "Do not handle." Some museums have begun to remove these restrictions, and to allow objects to be examined and handled by students under the direction and in the presence of a director. Similarly now in the "model school" students sometimes take charge of classes and handle children in the presence of the supervisor. Such schools are often called training schools. Other institutions go a step further and place schools for longer or shorter periods directly in charge of students, who work under the direction but not in the constant presence of a supervisor. These schools are called "practice schools" when those who designate them are not fearful that the word will intimidate parents. Two sets of schools, one for observation and one for practice, are sometimes maintained, and more rarely experimental schools, where new ideas and theories may be tested.

OBSERVATION.

That the student as a part of her training should observe others teach is the accepted belief at all the schools I visited, with the possible exception of one, where I was told the principal did not believe in observation as usually conducted. What this means is doubtful, as nearly every school follows a different method. Students observe lessons given by their own classmates who are teaching for the first time, — lessons that in rare cases have previously been or are later to be discussed; students observe lessons given by a room teacher, a skilled teacher, and report upon them to an absent critic teacher, who points out the elements of strength and of weakness; students observe lessons given by heads of departments in the normal school to classes in the practice school, at which lessons other members of the faculty and often the principal is present, — lessons

which, after the practice school class is dismissed, are discussed by the members of the faculty and the normal school students, and also by visitors who may happen to be present and are inclined to take a part; students observe lessons given by room teachers or supervisors, at which lessons the teacher of method with whom they are to consider them later is present. Some believed that observation should precede practice teaching, others that it should be concurrent with it.

That the student should gain some skill in teaching by preparing lessons and teaching them is commonly held. The amount of time and attention devoted to this work varies greatly. The requirements for admission, the typical school of the community, and the opportunities for practice afforded by the town or city in which the normal school is located seem to be the chief factors in determining the attitude of the school towards practice teaching, and in forming the opinion of those in direction as to the value of such work. The principal of the model schools at one normal school declares, "We make no attempt to develop any skill in teaching;" at another, "This school probably holds rather a unique place among the normal schools of the country in that the academic work is emphasized here more strongly than any other." Both of these schools are situated in rural communities, where the ungraded district school is the type. They maintain model schools of from 300 to 500 pupils and enroll senior classes of normal students of from 400 to 750. In one of them the normal senior spends an hour a day for half a year or less in observation and practice, — a single room in the practice school having in one day from 20 to 30 different teachers. Yet nowhere did I find a better illustration of the value of practice teaching, even though conducted under such adverse conditions. I was urged to visit the practice department of this school by a graduate, now a teacher in another normal school, who after graduation had served as superintendent of schools, and who declared that his experience with teachers showed that those who took even this amount of practice gained something no amount of theory could give.

That the normal school should develop power to teach and to manage by giving opportunities to teach and to manage, and

that the demonstration of this power should be a requisite for graduation, is the belief, to judge belief by performance, only of those schools whose aim is strictly professional, where the entrance requirements are practically the same as those for college, — the city normal schools and the schools located in thickly populated communities and amid excellent graded school systems.

At DeKalb, Ill., the student spends an entire half day five times a week for two terms in observation and practice, being in charge of a room the entire second term. A general supervisor or critic is employed for each two rooms. If the student does not show in two terms the required amount of power in teaching and managing she is required to practice for three terms or longer. If she shows clearly that she cannot develop the power in a reasonable time she is dropped.

At Montclair, N. J., the plan is similar, practically that now in effect at Providence, R. I. Here the student practices the entire day five days in the week and for one half year. At DeKalb the practice schools are part of the normal school equipment. The schools used by the Montclair and Providence students are in scattered towns and cities in the vicinity. A critic is in charge of two or three rooms. The half year of practice is added to the two years of study at the normal school, making the course two and one half years.

At Chicago, until 1903 the course was three years. At that time the work in the normal school was limited to two years, to be followed by a third year of practice in the city schools on pay, at the end of which time a certificate to teach is granted and usually a regular appointment secured.

The New York normal schools, both State and city, are under State direction, and are required to give in their courses of two years, or about two thousand hours, six hundred hours of observation and practice. At Plattsburg the seniors spend three hours daily for an entire year in observation and practice, remaining five weeks in each of the eight grades. In Rochester and Greater New York the last half of the senior year is spent in practice, five hours a day for five days in the week. The preceding year and a half the students have observed about one half day a week, — in Brooklyn in the model schools connected

with the normal school, in Rochester in any of the city schools where good work is done. In Rochester the practice is in schools directly connected with the normal school. In Greater New York normal students who have completed a year and a half of work are assigned to the different public schools, where, under the direction of the masters, they serve as assistants and substitutes, being paid for the latter work. A force of visiting supervisors or critics is employed, each student in practice being visited about once in two weeks.

In Philadelphia an additional building of forty-eight rooms has just been turned over to the normal school to meet the increased demand for practice. It is proposed to put one critic in charge of two rooms, and have students practice from one quarter to one half of the senior year in full charge of rooms, the practice being preceded by observation extending over about a year and a half.

CONCLUSIONS.

In attempting from this knowledge to draw conclusions in regard to normal school education in Massachusetts, it is first necessary to determine to which class the Massachusetts normal schools belong.

We found that whether the work of a normal school was chiefly academic or chiefly professional depended largely upon the educational character of the community which it served. Students entered the Massachusetts normal schools when they were first established, about 1840, and for many years thereafter, with a scholarly preparation often not beyond that of children at the end of grade seven in our present city schools. At the end of the normal school course, and sometimes before, they went out to teach in the ungraded district schools which then constituted the majority of the schools of Massachusetts. In 1840 there were in the United States only 44 cities of 8,000 inhabitants and upwards. The typical school was the rural school. In 1905 there were in Massachusetts alone 48 such cities. Only about 10 per cent. of the population of the State is now found in smaller towns, and less than 5 per cent. of the pupils are now at school in one-room rural schools. The typical school in Massachusetts is the graded city school. Students are required to bring for admission to the normal schools

from four to six years more of scholarly training than was required in 1840, or for a long time after, — a different kind of student to prepare for a different kind of work.

Massachusetts is now facing the same problem as the city normal schools, — the professional schools.

What was the intention when the first Massachusetts normal schools were established? Governor Everett on Sept. 5, 1839, in his address at the opening of the State normal school at Barre (afterwards transferred to Westfield) outlined the normal school course under these three heads: “(1) Review of branches of knowledge to be taught in common schools. (2) Art of teaching. (3) School management,” and then added: “In the last place it is to be observed that in aid of all the instruction and exercises within the limits of the normal school, properly so called, there is to be established a common or district school as a *school of practice*, in which, under the direction of the principal of the school, the young teacher may have the benefit of *actual exercise* in the *business of instruction*.” Italics are mine.

The evident intention of the founders of the Massachusetts normal schools was that they should be professional schools in the sense in which the term “professional schools” is used in this report.

The Massachusetts normal schools were established as professional schools; they serve a community whose educational character demands professional schools for the training of teachers, and in keeping with these facts the Massachusetts State Board of Education declares: “The design of the normal schools is strictly professional; that is, to prepare in the best possible manner their pupils for the work of organizing, governing and teaching the public schools of the Commonwealth.”

Such a normal school should have under its direction and for the use of its students in observation and practice, a system of schools covering all the grades for which it trains teachers. The ideal plan would be to have one such set of schools for observation and another for practice; the former to be as nearly as possible *model* schools in size, equipment, etc., with each room in charge of a *model* teacher; the latter to consist of rooms, in number equal at least to one third the number of

students in the senior class, but small in number of pupils (preferably from 18 to 24), and with a supervisor in charge of each group of two or three rooms.

The normal student should observe work in all grades and in all subjects. The greater part of such observation should be directed and discussed, and the teacher with whom it is to be discussed should be present at the observation.

Normal students should come into direct contact with children from the very beginning of the course, not only in observation but also in practice teaching. The latter should begin with work with individuals, proceed to the oversight of small groups without other children in the room, and conclude with the full charge of the room all day, five days a week, for a sufficient number of weeks "to begin the formation of the teaching habit, and to realize the obstacles and to adopt or originate methods of surmounting them." The normal school diploma should mean that the graduate has not only met the requirements of personality and scholarship, but has demonstrated her ability to manage and to teach.

Every teacher in the normal school, from the principal down, should come constantly into contact with children, and should occasionally teach classes of children. There should be no teacher in the normal school who does not work also in the model and practice schools, and, *vice versa*, there should be no teacher in the model and practice schools who does not do some work with normal students.

When we consider the briefness of the teaching career of the normal graduate, an average of less than ten years, and the inadequateness of the average salary, it does not seem wise to extend the elementary course beyond two years. It might be wise to shorten it to one year for those who are to teach in the smaller rural schools, — not of course because such teachers do not need a better preparation, but because the communities will not pay for it.

The schools of Massachusetts required last year about 1,500 new teachers, the nine State normal schools (omitting the normal art school) graduated 539. Notwithstanding the fact that the State furnishes normal school education free, and has located a normal school at almost every door, yet the number

graduating annually from these schools is only about one third of the number of new teachers annually needed in the State. It is evident that the possession of a normal school diploma does not yet mean enough to induce a sufficient number to undertake the normal school work. It may be made to mean more by making the work of the normal schools more "strictly professional," by seeking more directly to develop skill in teaching and in managing, by giving "the young teacher the benefit" of more "actual exercise in the business of instruction."

Respectfully submitted,

JOHN G. THOMPSON.

MARCH 2, 1909.

APPENDIX G.

AN OUTLINE IN

ELEMENTARY GEOMETRY.

PREPARED FOR USE IN STATE NORMAL SCHOOL, BRIDGEWATER, MASS.,
BY BRENELLE HUNT, PRINCIPAL STATE MODEL SCHOOL.
1908.

ELEMENTARY GEOMETRY.

INTRODUCTORY.

The following exercises in geometry have been selected to constitute a part of the mathematical work of the ninth grade. The selection of materials is for this particular grade, with no attempt to outline a course for schools whose conditions are radically different from our own.

An effort has been made to let the pupils see how the science of geometry has grown out of, and is necessitated by, man's daily life and work, in which he has found it necessary to construct and use certain definite forms, giving to each a description and a name. The construction and duplication of these forms in the industrial world necessitate the making of countless measurements and the computation of many required results.

The work is primarily mathematical, and it is the aim to present such objects to the class first as are best adapted to give the simple, vivid, mathematical concept. This is immediately followed by a study of its appearance in the material world about us, supplemented by such practice in measuring, computing and constructing as will render the child's mathematical knowledge practical and valuable.

Applications are multiplied sufficiently to insure constant suggestion of mathematical facts by his daily surroundings, and a consequent appreciation of geometry as an aid to man in constructing, strengthening and beautifying his buildings, and ministering in countless ways to his daily needs.

INTRODUCTORY EXERCISE.

Measure the length of your desk lid, stating the result exactly. The width. Where did you place your rule in each case? What were you really measuring?

Find the *area* of the top surface of the desk lid.

Can you tell me how great an angle is formed by the bottom of the desk and the side toward you, so that I could make one like it without seeing yours?

Can you find the *area* of the *side* of your desk?

Measure the inside dimensions of a table drawer. How many one-inch cubes would just fill it? Can you tell how many would just fill your desk?

Can you tell how many cubic inches of water your tumbler will hold?

The front of a business block is made of marble slabs shaped in a quarry a hundred miles away. What facts must be furnished by the builder to secure an exact fit at corners, windows and roof?

A series of walks (diagram by teacher) need reconcreting. The cost depends upon the number of square yards of surface to be covered. Mark the parts whose area you can compute accurately. Where are you unable to get the area?

Which of the above problems were you able to solve? Which were too difficult? These are only a few of the many things which carpenters, plumbers, machinists, engineers, stone workers and surveyors are called upon to do every day. The study of geometry enables us to do them easily and accurately. It also enables the scientist to construct his balloon, the naval officer to hit a target miles away, and the astronomer to measure the size of the planets.

DEFINITION OF GEOMETRY.

Geometry is the knowledge that has for its object the properties and relations of lines, angles, surfaces and volumes.

SOME FUNDAMENTAL IDEAS.

Matter. — Matter is anything which takes up room or occupies space.

Which of the following are matter? Air, water, shadow of a house, light, paint, color, electricity, gas.

Body. — A body is a limited portion of matter.

Space is the room which a body occupies and which is all around the body. How much of it is occupied?

Volume. — A volume is a limited portion of space. In what

do a body and its volume agree? differ? Classify the following: a brick, clay, contents of a box, iron, pencil, glass, tumbler, space within the tumbler.

Surface. — A surface is the limit of a volume. Kinds.

STUDY OF LINES.

A *line* is the limit of a surface.

KINDS.

A *straight line* is one which has the same direction throughout.

A *curved line* is a line no part of which is straight.

PRACTICE.

Specify accurately certain *lines* in the schoolroom.

Estimate their length in convenient units. *Measure* each and give results in *proper* units (English or metric), and specify *remainders* either in (a) units of lower order, (b) common fraction, (c) decimal fraction.

POSITIONS OF A LINE.

A line is *vertical* when it has the direction of a plumb line.

A line is *horizontal* when it has the direction of the surface of still water.

A line is *inclined* when it is neither vertical nor horizontal.

DISCUSSION AND PRACTICE.

Who uses the plumb line? Show how it may be used to test vertical lines in the room. Test horizontal surfaces by a spirit level.

RELATIVE POSITION OF TWO OR MORE LINES.

Lines are *parallel* when they have the same direction throughout.

Lines are *inclined* when one leans either toward or from the other.

Two lines are *perpendicular* when they differ in direction and one does not lean either toward or from the other.

MANUAL WORK.

Use the *marking gauge* and draw a line parallel to the edge of a board and one inch from it. Saw with a *ripsaw*. Try to do the same thing by using (1) a try-square and pencil; (2) a rule and pencil; (3) a pencil only.

CLASS-ROOM WORK.

Find how many points are necessary to determine the exact position of a line. Axiom.

Show how *perpendicular lines* may be tested by measurements, applying this axiom.

STUDY OF ANGLES.

(Practical work in measuring, constructing and applying is printed on pages following.)

Angle. — An angle is the difference in direction of two lines extending from a point, as measured by an arc connecting the lines and having for its center the point from which the lines extend; or,

The difference in direction of two planes extending from a line; or,

The difference in direction of three or more planes extending from a point.

KINDS OF ANGLES ACCORDING TO FORMATION.

A *line angle* is an angle formed by lines extending from a point.

The *sides* of an angle are the lines which form it.

The *vertex* of an angle is the point from which the lines or planes extend.

A *plane angle* is an angle formed by planes extending from a line or point.

A *diedral angle* is a plane angle formed by two planes extending from a line, and is measured by the line angle having its sides in the planes, perpendicular to the line from which they extend.

A *polyedral angle* is a plane angle formed by three or more

planes extending from a point, as measured by the diedral angles formed by adjacent planes.

KINDS OF ANGLES ACCORDING TO SIZE.

A *right angle* is an angle formed by two lines extending perpendicularly from each other.

An *oblique angle* is an angle formed by two lines inclined either toward or from each other.

An *acute angle* is an oblique angle less than a right angle.

An *obtuse angle* is an oblique angle greater than a right angle.

A *convex angle* is an angle greater than two right angles.

A *concave angle* is an angle less than two right angles.

KINDS OF ANGLES ACCORDING TO RELATIVE POSITION.

Adjacent angles are angles which lie on the same side of one line and on the opposite side of another when the lines meet.

Opposite or vertical angles are angles which lie on opposite sides of each of two lines which intersect.

• MEASURING ANGLES.

Mechanically. Carpenter. Mason.

Describe the *steel square* of the carpenter. Mark a board for sawing so as to give square corners. Test the marking and saw. Test the result.

Before sawing thick timber, mark guide lines down the front and back as well as across the top, to secure accurate results.

What is the *oblique angle* most frequently needed by wood workers? Examine the corners of your desk (inside) or corners of a picture frame. At what angle were the boards and mouldings sawed? How may this angle be obtained? Describe a *miter box*. What angles may be obtained by its use?

Using the miter box or square, mark and cut strips for a halving joint or an oblique halving joint.

Using a carpenter's *bevel*, measure any angle found on a triangular (or other) prism. Compare with other angles. By means of the bevel make an exact drawing of the various angles. Measure the angles about the basement staircase with bevel;

mark board for flooring and saw to fit this angle. Make rule and bevel measurements and make a pattern of the side of your desk.

Geometrical and Numerical Measures.

The architect, draughtsman or surveyor may wish to specify orally or in writing the exact size of an angle. In order to do this, there must be some unit of measurement which others will understand.

Class exercise to show how the *arc* may be used to record increase or decrease in the *size* of any angle.

The *geometrical measure* of an angle is an *arc* included between its sides and having its center at the vertex. Class show that *any* such arc is the true measure of the angle.

A *degree* is $\frac{1}{360}$ of a circumference, and the *numerical measure* of an angle is the number of degrees in the arc which measures it.

Draughting. Measuring. Constructing. Estimating.

Show some plans and working drawings. Explain the importance of the draughtsman and his work. Teach the drawing, lettering and reading of angles. Draw measuring arcs with *compasses*.

Teach how to use a *protractor* in measuring any given angle.

By means of the protractor construct angles of any given size.

Measure the angles in the wooden triangles which accompany the drawing kit. What do you find? Construct as many different angles by their use as possible.

To secure closer acquaintance with angles, give practice in *estimating* the size of given angles by comparing with the right angle as a standard of measurement. Test all estimates by subsequent measurement with the protractor.

The following terms are frequently used in geometry: —

The *complement* of an angle is the angle that remains after subtracting the given angle from one of 90° .

The *supplement* of an angle is the angle that remains after subtracting the given angle from one of 180° .

PROBLEMS IN CONSTRUCTION.

1. To bisect a given straight line without the aid of a rule.
2. To bisect a given arc.
3. To construct a line perpendicular to a given straight line.
 - (a) At the center.
 - (b) At or near the end.
 - (c) From a point without the line.
4. To draw a line parallel to a given line at a given distance from that line.
5. To construct a right angle.
6. To bisect a given angle.
7. To construct an angle of 60° , 30° , 15° , 45° , 120° , 105° .

Mechanical Method of constructing Specific Angles.

The *carpenter* or *cabinet maker* is frequently called upon to construct angles of certain number of degrees. Instead of using a protractor, as the draughtsman does, he uses the *2-foot folding rule* or the *steel square*.

Using a protractor, draw angles of 15° , 25° , 30° and 45° , with sides about 6 inches long. Open the folding rule and adjust carefully so that the *inner* edges coincide with the sides of the angle. Measure the distance between the inside corners of the two ends of the ruler. Make a table showing what distances would give the other angles. Mark a strip of board (or cardboard) by the use of the 2-foot rule for any of the above angles.

Illustrative Exercise. — Physicians have given much study to the proper slope of the top of school desks. A comfortable angle for *reading* is 40° to 45° from the horizontal; 15° to 30° are better angles for *writing*.

Make a scale drawing of side of a desk 17 inches long and 7 inches wide, with lid sloping at an angle of 15° . Use 2-foot rule in getting the proper angle. (The use of the steel square will be given further on.)

Importance of Angles in Architecture. Roofs.

Learn the meaning of the following terms as applied to roofs: *run, rise, apex, eaves, gable*. Draw to a scale of $\frac{1}{4}$ inch to 1 foot triangles which shall represent the gable ends of four great types of roofs. Consider the width of the building in each case as 20 feet.

Grecian — slope forms angle of from 12° to 16° with the *run*.

Roman — slope forms angle of from 23° to 24° with the *run*.

Gothic — slope forms angle of 60° with the *run*.

Elizabethan — slope forms angle of over 60° with the *run*.

Account for each of these types from climatic conditions.

Find as many of each type as possible in Bridgewater.

Make diagrams of the following *modern types* of roofs; study the angles of each, find advantages and disadvantages: *shed roof, gable roof, hip roof, gambrel roof, Mansard roof*.

STUDY OF SURFACES.

KINDS.

Explain how granite workers test the surfaces they are smoothing by many applications of a "straight-edge" (rule) in different directions. If the straight-edge touches the surface throughout its length wherever placed the surface is said to be *plane*. Test the lid of your desk, surface of blackboard, pane of glass. Observe the plasterer, landscape gardener and other workmen test surfaces.

A *plane surface* is such a surface that if *any* two points in it be connected by a straight line, that line will lie wholly in the surface.

A *curved surface* is a surface no part of which is plane.

POSITIONS OF A SURFACE.

A surface is *vertical* when it has the direction of a plumb line.

A surface is *horizontal* when it has the direction of the surface of still water. How are horizontal surfaces tested?

A surface is *inclined* when it is neither vertical nor horizontal.

RELATIVE POSITIONS OF SURFACES.

Two surfaces are *inclined* when one leans either toward or from the other.

Two surfaces are *perpendicular* when they differ in direction and one does not lean either toward or from the other.

Surfaces are *parallel* when they have the same direction.

PLANE FIGURES.

Definition (illustrate by Figures on the Blackboard).—A plane figure is a portion of a plane surface bounded by one or more lines.

Division according to Kind of Bounding Line.

A *rectilinear figure* is a plane figure bounded by straight lines.

These lines are called the *sides* of the figure.

A *curvilinear figure* is a plane figure bounded by one or more curved lines.

RECTILINEAR FIGURES.

Division according to Number of Sides.

A *triangle* is a rectilinear figure having three sides.

A *quadrilateral* is a rectilinear figure having four sides.

A *polygon* is a rectilinear figure having more than four sides.

DEFINITIONS OF PARTS OF FIGURES.

The *perimeter* of a figure is the sum of its sides.

Note.—Consecutive angles are the angles next to each other in a figure.

The *diagonal* of a figure is a straight line connecting the vertices of angles not consecutive.

The *base* of a figure is any side taken as the lower.

The *altitude* of a figure is the perpendicular distance from the base to the opposite side, or to the vertex of the opposite angle.

The *vertex* of a figure is the vertex of the angle opposite the base.

STUDY OF QUADRILATERALS.

VARIETIES FROM RELATIVE DIRECTION OF SIDES.

A *parallelogram* is a quadrilateral having its opposite sides parallel.

A *trapezoid* is a quadrilateral having only two sides parallel.

A *trapezium* is a quadrilateral having no two sides parallel.

VARIETIES OF PARALLELOGRAMS FROM SIZE OF ANGLES.

A *right-angled parallelogram* is a parallelogram having all its angles right angles.

An *oblique-angled parallelogram* is a parallelogram having all its angles oblique angles.

VARIETIES OF RIGHT-ANGLED PARALLELOGRAMS FROM RELATIVE LENGTH OF SIDES.

A *square* is a right-angled parallelogram having its sides equal.

A *rectangle* is a right-angled parallelogram having only its opposite sides equal.

VARIETIES OF OBLIQUE-ANGLED PARALLELOGRAMS FROM RELATIVE LENGTH OF SIDES.

A *rhombus* is an oblique-angled parallelogram having its sides equal.

A *rhomboid* is an oblique-angled parallelogram having only its opposite sides equal.

DRILL. PRACTICAL APPLICATION. MANUAL WORK.

Rectangles.

Review (arithmetic) area of a rectangle. Explain the meaning and use of a mathematical formula. Write formula for area of a rectangle. Drill.

Pupils measure available rectangular surfaces inside the building and out of doors. Compute the area of each in most appropriate surface units. (Illustration: desk, floor, light of glass, door space, walls of a room, schoolyard, concrete walk.)

Carpeting.

Diagram each step in every solution before doing any figuring. Use floor plans of houses drawn to scale and carpet several rooms in each.

Carpenters' Problems.

Pupils measure pieces of board, plank, joist, etc., and compute the number of *board feet* (B. M.) in each. All written solutions should be accompanied by a diagram of the piece of timber to be measured in order to help insure clear thinking.

Measure a bookcase in the schoolroom; write an order for the lumber needed to build it, specifying the kind of material, lengths desired, and total number of board feet. Compute the cost.

Some Interior Areas. Doors. Windows.

Learn names and uses of the various parts of a door. (Prang, Books IX.—X., pp. 215, 216.) Discuss the use of panels in door construction, different arrangement of panels, and styles of doors. Compute areas of parts.

Measure the windows of your schoolroom and write an order for light of glass, giving accurate specifications.

Measure and compute the total interior area of a box, drawer, or room, paying special attention to the method of expressing the steps in the solution.

Illustrative Problem. — How many square yards of plaster will it take to cover sides and ceiling of a room 16 by 20 feet and 11 feet high, having four windows 7 by 4 feet and three door spaces each 9 by 4 feet?

Work.

$$\begin{array}{rcl}
 \text{Area of ceiling,} & 16 \times 20 \text{ sq. ft.} & = 320 \text{ sq. ft.} \\
 \text{Total area of end walls, 2 (11} \times 16 \text{ sq. ft.)} & = & 352 \text{ sq. ft.} \\
 \text{Total area of side walls, 2 (11} \times 20 \text{ sq. ft.)} & = & 440 \text{ sq. ft.} \\
 \hline
 & \text{Total area} & = 1,112 \text{ sq. ft.}
 \end{array}$$

Areas to be deducted:—

$$\begin{array}{rcl}
 \text{Windows, 4 (4} \times 7 \text{ sq. ft.)} & = & 112 \text{ sq. ft.} \\
 \text{Doors, 3 (9} \times 4 \text{ sq. ft.)} & = & 108 \text{ sq. ft.} \\
 \hline
 & \text{Total} & = 220 \text{ sq. ft.}
 \end{array}$$

$$\begin{array}{rcl}
 1,112 \text{ sq. ft.} & & \\
 \underline{220 \text{ sq. ft. deducted.}} & & \\
 892 \text{ sq. ft. to be plastered.} & & \\
 & 9 \text{ sq. ft.)} & 892 \text{ sq. ft.} \\
 & & \underline{99\frac{1}{9}}
 \end{array}$$

Answer: $99\frac{1}{9}$ sq. yds.

Rhombus, Rhomboid and Trapezoid.

Class, equipped with cardboard, rule and scissors, work out the area of a rhombus, rhomboid and trapezoid. Express the area of each by a formula.

Many surfaces in building, concreting and tiling are in one or another of the above shapes. Give practice in making *first hand measurements* of the actual surfaces wherever possible, or scale drawings of them.

STUDY OF TRIANGLES.

KINDS ACCORDING TO RELATIVE LENGTH OF SIDES.

A *scalene triangle* is a triangle having its sides unequal.

An *isoscles triangle* is a triangle having only two sides equal.

An *equilateral triangle* is a triangle having its sides equal.

KINDS ACCORDING TO DIFFERENT ANGLES.

A *right-angled triangle* is a triangle having one right angle.

An *obtuse-angled triangle* is a triangle having one obtuse angle.

An *acute-angled triangle* is a triangle having all its angles acute.

An *equiangular triangle* is a triangle having its angles equal.

MEASUREMENTS. AREAS. INTERIOR ANGLES. MISCELLANEOUS APPLICATIONS.

Area of Triangles. — Class demonstrate by drawing, cutting and superposition that the area of any triangle equals one half that of a rectangle of the same base and altitude. Express the area of each of the three following triangles by the most convenient formula: (a) base 15 inches, altitude 8 inches; (b) base 16 inches, altitude 9 inches; (c) base 17 inches, altitude 9 inches.

Oral drill. Written problems.

Measuring and Sawing Small Triangles.

Make necessary measurements of a corner shelf, wooden bracket or other available triangular surfaces. Draw full size

(or to scale) on paper. Tell length and width of board from which this could be cut most economically. Use try-square, make necessary drawing and saw the required triangle. How many board feet used? How many wasted?

Larger Triangles — Gables.

Make a scale drawing of gables or other triangular surfaces from description. Compute the area in board feet. There is some waste in boarding-in a gable. Why? Builders in making estimates add 10 per cent. or more to the number of board feet actually required.

“Pitch” of Roofs.

All gable roofs are not alike. They differ considerably in “pitch.” Draw to scale five triangles representing as many gables. Consider the width of each building as 30 feet and the ridgepole in the center.

Roof No. 1 is $\frac{1}{2}$ pitch (1 foot rise to 1 foot run).

Roof No. 2 is $\frac{1}{3}$ pitch (2 feet rise to 3 feet run).

Roof No. 3 is $\frac{1}{4}$ pitch (18 inches rise to 3 feet run).

Roof No. 4 is $\frac{1}{5}$ pitch (18 inches rise to $3\frac{3}{4}$ feet run).

Roof No. 5 is $\frac{1}{6}$ pitch (1 foot rise to 3 feet run).

Have the class discover where the fractions $\frac{1}{2}$, $\frac{1}{3}$, etc., come from in each of the above descriptions and learn a simple and easily remembered way of describing a roof of any specified pitch.

Measure the angles in each triangle. Find the sum in each case. What is true of the sum of the interior angles of a triangle?

Compute the exact area of each gable. Estimate 10 per cent. more for waste and give cost of boarding-in the two gables of each house at \$26 per M.

Which of the rectilinear figures which we have studied are most helpful in computing the areas of front or side elevations of houses having *shed*, *gambrel*, *hip* or *Mansard* roofs, A windows or dormer windows? Diagram various elevations and let class compute areas and cost of boarding.

Practical Problems in Roof Construction.

Given the width of building and height of ridgepole, from which can be obtained the "run" and "rise" of the roof, how long shall we saw the rafters? At what angle shall we cut the rafters? At what angle shall we saw the ends of gable boards?

Mechanical Method. — The carpenter gets all of these things by using his steel square and 2-foot rule, which are always at hand.

Exercise No. 1. — Hold a square with the long arm horizontal and the short arm vertical. What lines of a roof are here represented? If the *run* is 2 feet to every foot in the *rise*, a line representing the slope of the roof might connect what points on the short and long arms respectively of the square? Find other points which would give the same slope.

Lay the square on a board so that the further edge does connect these two points. Mark for sawing. (The other end of the rafter is cut the same way, except for a square cut to make it fit the "rafter plate.")

Exercise No. 2. — Hold the square as before. If the rise in the above roof is 8 feet and run 16 feet, what units might be used to indicate these dimensions on the proper arms of the square? Lay rule on so as to connect the 8-inch mark and 16-inch mark on short and long arms respectively. How many inches between those two points? Infer how long the rafter will be if no allowance is made for overhang.

Give other examples, using $\frac{1}{2}$ -inch as well as 1-inch units.

Computing Length of Rafters mathematically.

The architect, draughtsman or student computes this distance exactly. (Review or teach how to find the *hypotenuse* of a right-angled triangle.)

Practice finding lengths of rafters, diagonals, guy lines, ladders leaning against buildings, resultant motion lines, etc.

Out-door Measurements. Surveying.

House lots, farms and city blocks are frequently irregular and their angles have to be measured carefully by a surveyor.

Show how a simple *theodolite* may be constructed, and measure some out of door angles.

Study plan of an irregular city block. (Smith's Arithmetic, Book III.) Compute area of different lots; incidentally find what is true of sum of any two *adjacent* angles. How many is it necessary to *measure*?

Measure any two *opposite* or *vertical* angles. What is true? Show how this fact may be used to measure the distance between two points separated by water or other obstruction.

TRAPEZIUM. LAND MEASUREMENT. SAIL MAKING.

In addition to the above figures the *trapezium* and irregular rectilinear figures frequently require measurement (sails, farms, city lots, etc.). In the solution of problems use scale drawings or diagrams. Divide the figures into convenient triangles, rectangles or trapezoids; construct necessary altitudes and compute total areas.

KINDS OF POLYGONS ACCORDING TO NUMBER OF SIDES.

Polygons are named from the number of sides, as follows: *pentagon* (5 sides), *hexagon* (6), *heptagon* (7), *octagon* (8), *decagon* (10), *dodecagon* (12).

In addition, polygons are commonly spoken of as *regular* or *irregular*. *Regular* polygons are both equilateral and equiangular. Where found most commonly?

In computing areas how would you divide an *irregular* polygon?

How would your division of a *regular* polygon differ from this? Express such an area by means of a *formula*.

PROBLEMS IN CONSTRUCTION.

1. In any given triangle construct the "altitude line."
2. On a given base construct a triangle having the following base angles: 90° and 30° ; 75° and 45° ; 120° and 15° .
3. On a given base construct a square. Rectangle.
4. On a given base, with one given base angle, construct a rhombus. Rhomboid. Trapezoid.
5. Discover sum of interior angles of any quadrilateral.

6. Construct a line representing the altitude of any of the above figures.

(Other problems come conveniently after curvilinear figures.)

STUDY OF CURVILINEAR FIGURES.

CIRCLE.

A *circle* is a plane figure bounded by a curved line, all points of which are equally distant from a point within called the center.

The center of a circle is a point within the circle, equally distant from all points in the bounding line.

Lines of a Circle.

The *circumference* of a circle is the curved line which bounds it.

An *arc* is any portion of a circumference.

The *radius* is a straight line connecting the center with any point in the circumference. Plural of *radius* is radii.

The *diameter* is a straight line passing through the center and having its extremities in the circumference.

A *chord* is a straight line connecting the extremities of an arc.

A *secant* is a straight line cutting the circumference.

A *tangent* is a straight line touching the circumference.

Parts of a Circle.

A *semicircle* is a portion of a circle bounded by a diameter and half the circumference.

A *sector* is a portion of a circle bounded by two radii and the included arc.

A *quadrant* is a portion of a circle bounded by two radii perpendicular to each other and by the included arc.

A *segment* is a portion of a circle bounded by a chord and its arc.

A *ring* is a portion of a circle bounded by the circumferences of two circles having the same center.

Relative Positions of Two Circles.

Concentric. — Circles are concentric when they have the same center.

Eccentric. — Circles are eccentric when they have not the same center and one is within the other. If circles are eccentric their circumferences may or may not touch.

Circumferences intersecting.

ELLIPSE.

Definition. — An *ellipse* is a plane figure bounded by such a curved line that if from any point in it straight lines be drawn to two points within, called the foci, their sum will be a constant quantity.

The *foci* are two points within the ellipse, to which, if straight lines be drawn from any point in the bounding line, their sum will be a constant quantity.

The *center* is the middle point of a straight line connecting the foci.

The *curve* of an ellipse is the line which bounds it.

The *major axis* is a straight line passing through the foci, and having its extremities in the curve.

The *minor axis* is a straight line passing through the center perpendicular to the major axis, and having its extremities in the curve.

OVAL.

An *oval* is a plane figure having the form of the outline of an egg.

MEASUREMENTS. PRACTICAL APPLICATIONS. CONSTRUCTION.

Teach how to measure *diameters* of circular bodies (*a*) without calipers, (*b*) with calipers. Practical methods of measuring the *circumferences* of each of the above circular bodies. Pupils divide each circumference by its respective diameter to get the ratio. State result in good English; also express as a formula: —

$$\begin{array}{lcl} \text{Circumference} & = & ? \\ \text{Radius} & = & ? \end{array}$$

Teach method of computing area of a circle. Write formula for computing area when only diameter (or radius) is known, when only circumference is known.

Problems.

Compute the circumference of a *wheel* (bicycle, auto, car) of given diameter. How many revolutions in given distance? Principle of *cyclometer*.

Compute the area of *cross-sections of tubes* in radiator (inner and outer), water pipes, and tanks preliminary to finding *contents* and *radiating surfaces* later.

Find area of *arched windows* (rectangle + semicircle) of different dimensions. How much more light admitted by rectangular window of same height and width? Why latter used in schoolrooms?

The total window space in a schoolroom should be one fifth as much as the total floor space. Is it so in your schoolroom?

Certain city schoolrooms would require one fourth as much light as floor space. How many arched windows of certain dimension required? How many rectangular?

The Curves in Art.

Study pictures of Greek, Roman, Mohammedan and Gothic arches, doors, and columns. Find where the circle predominates. See if you can recognize any of the other curves. Diagram two or three Greek and Roman mouldings (ovolo, cavetto, scotia, etc.), as shown in the columns, to impress on class the beauty of the smallest detail and the painstaking care of the ancient workman.

PROBLEMS IN CONSTRUCTION.

1. Construct a circumference with (a) compasses, (b) string.
2. In a circle construct two diameters perpendicular to each other.
3. Divide the circumference into 4 equal parts; 8 equal parts.
4. Inscribe a square; octagon.

5. Circumscribe a square whose sides shall be perpendicular to the diagonals of an inscribed square.
6. Inscribe an equilateral triangle.
7. Inscribe a regular hexagon within a circle.
8. Inscribe a circle within a square.
9. Circumscribe a circle about a given square.
10. Construct a sector of 60° (sextant).
11. Construct a sector of 90° (quadrant).
12. Draw a line tangent to a given circle at the end of a given radius.
13. Find center of a given circle.
14. Find center of any given arc.
15. Circumscribe a circle about a given triangle.
16. Inscribe a circle in equilateral triangle, isosceles triangle, scalene triangle.

ELEMENTARY STUDY OF VOLUMES.

DIVISION ACCORDING TO BOUNDARY.

A *polyedron* is a volume bounded by rectilinear figures.

A *cylinder* is a volume bounded by two equal and parallel circles and by a curved surface extending perpendicularly from the circumference of one to the circumference of the other.

A *cone* is a volume having a circle for its base, and a curved surface tapering from the circumference of the base to a point directly above the center of the base.

A *sphere* is a perfectly round volume.

A *spheroid* is a volume resembling a sphere either flattened or elongated.

DIVISION OF POLYEDRONS ACCORDING TO RELATIVE SIZE OF FACES AND ANGLES.

A *regular polyedron* is a polyedron having equal and regular faces and equal diedral angles.

An *irregular polyedron* is a polyedron which does not have both equal and regular faces and equal diedral angles.

DIVISION OF IRREGULAR POLYEDRONS ACCORDING TO FORM AND
RELATIVE DIVISION OF FACES.

A *prism* is an irregular polyedron having two equal faces with their homologous sides parallel and the other faces parallelograms.

A *pyramid* is an irregular polyedron having a rectilinear figure for its base and the other faces triangles meeting at a point.

Study the appearance of these forms in nature (see crystals of quartz, amethyst, calcite, dog-tooth spar, garnet, tourmaline).

Study some famous buildings to help class appreciate how the prism, cylinder, pyramid and cone have been applied by different nations in their architecture. Advantages of prism, pyramid, cylinder, or cone in feudal castles, cathedrals, minarets, etc.

PARTS AND DIMENSIONS.

Base of cone or pyramid.

Bases of cylinder or prism.

Convex surface of prism or pyramid is sum of lateral sides.

Convex surface of cylinder or cone is the curved surface.

Altitude of each is perpendicular distance from base to opposite face or vertex. How measured? Distinguish between *altitude* and slant height of pyramid or cone.

A *truncated pyramid or cone* is a portion included between the base and any plane made by cutting the volume through the convex surface.

A *frustum of a pyramid or cone* is a portion included between the base and a plane made by cutting the volume through its convex surface *parallel to the base*.

MEASUREMENTS AND PRACTICAL APPLICATIONS.

Measurements. — Teach method of making accurate measurements of all dimensions necessary in order to compute area of bases, convex surfaces, or cubical contents. Use first the models, then such applications as convenient.

External Areas of Volumes. — Review method of finding areas of circles, regular polygons, etc. Cut sheet of paper and

fit about the models so as to discover what the convex surfaces equal.

Find the approximate radiating surface of a wood stove, pipes in steam radiator or stove pipe. Compute amount of tin necessary to make tin fruit cans and approximate cost of same, also approximate amount of sheet iron or galvanized iron necessary to construct certain stove pipes, ventilating flues, ash-barrels, circular baking tins, lamp shades, funnels and milk cans.

Cubical Contents.

Teach method of finding contents of prisms. Apply in finding *capacity of bins and cars* in cubic feet or bushels. Compute volume of air in schoolroom, amount per pupil and various related problems of hygiene.

Measure gas, water and steam pipes (inside dimensions), compute contents, weight and pressure. Contents of cylindrical oil tanks, hot-water tanks, fruit and paint cans. These may be in cubic inches, cubic feet or gallons.

RATIO AND PROPORTION. SIMPLE APPLICATIONS. •

RATIO.

Divide the length of the desk lid by its width. What does the quotient show? Divide the length of a blackboard slate by its width. What does the quotient show? What does the quotient show in each of the following: divide area of blackboard slate by area of desk lid; perimeter of rectangle by length of base; altitude of a triangle by its base, etc.

The *ratio* of two numbers is the quotient obtained by dividing one number by the other.

Expressions of ratio: $6 \div 3$, $6 : 3$, $\frac{6}{3}$.

COMPARISON OF RATIOS.

(a) 4 : 5	(d) 5 : 30	(g) 8 : 10	(j) 24 : 8
(b) 3 : 1	(e) 2 : 3	(h) 40 : 16	(k) 8 : 12
(c) 1 : 6	(f) 5 : 2	(i) 30 : 10	(l) 10 : 4

Which of the above ratios is greater: *a* or *f*, *h* or *i*, *i* or *l*?
Which is less: *c* or *e*, *h* or *j*, *f* or *g*?

Find any two ratios which are equal; *i.e.*, have the relation of *equality*. If two ratios have this relation, they may be written as follows: $6:3 = 22:11$. Such a statement is called a *proportion*.

A *proportion* is an equality of ratios.

The terms are called first, second, third and fourth terms; the first and fourth are called *extremes*; the second and third are called *means*.

In several true proportions compare the product of the means and the product of the extremes. Infer how any one missing term might be found if the other three were given. Examples for practice.

SIMILAR TRIANGLES.

Review definition of similar figures.

Exercise. — Draw a 4-inch horizontal line ($a\ b$); at b erect a perpendicular ($b\ c$) 3 inches long. Connect a and c by a straight line ($a\ c$), which should be how long? Divide the base line into 1-inch lengths, erecting a perpendicular at each point. Observe that we have now four different triangles. Letter for convenience in discussing.

Compare the angles of any one with corresponding angles of any of the others.

What is the ratio of the base to altitude of any one of the triangles? Compare with any other. What is the ratio of the base to hypotenuse?

Compare the ratio of base of smallest to base of largest with the ratio of altitude of smallest to altitude of largest, etc. What kind of triangles are these? Why?

Given base and altitude of one of two similar triangles and base only of the other, how may the altitude be found? Other examples.

Practice in estimating Height of Buildings, Trees, etc.

Fix a 7-foot pole on a base so that it will stand in a vertical position; fix a 4-foot pole in the same way. In schoolroom or hall place these poles so that in sighting from the top of the 4 foot to the top of the 7 foot you can just see the top of one wall of the room. Make a careful diagram showing how the real and imaginary lines make two similar triangles. (Sight

line = hypotenuse. Horizontal line 4 feet from floor = base.) What distance must be added to the altitude of the larger triangle to give the height of the room? Use the measurements which correspond to the dimensions in the following proportion, and compute the altitude of the large triangle: —

$$b : a = B : A.$$

Similarly estimate the height of a telephone pole, roof, steeple, trees, etc.

The same principles may be applied by measuring the shadows cast at a certain hour by two vertical bodies.

Estimating Distance between Points on Level.

Make a large protractor on cardboard; paste or tack on to thin board, and mount on pole or camera tripod. Two wire nails driven in either end of base line of protractor will serve as sights. A strip of wood (or hollow curtain rod) may be fastened to center of protractor so as to turn easily in any direction. Here we have a simple instrument for reading out-of-door angles approximately.

Problem. — To measure length of Campus pond.

Method. — Two poles (*a* and *b*) 80 to 100 feet apart will indicate the base line of the triangle, one of them (*a*) being placed at one extremity of the pond. A third pole (*c*) is held at the other extremity of the pond. Imaginary lines connecting *a* and *b*, *b* and *c*, *c* and *a* give us the triangle to be measured, the line *b c* being the length of the pond.

Place instrument at either end of base line successively, sight the pole (*c*) and read the angles. Class make sketch on pad and mark size of angle and length of base line. Return to schoolroom, and construct with rule and protractor a triangle *similar* to the one just measured, drawing to scale of $\frac{1}{16}$ inch to 1 foot. Measure the side *b c* in $\frac{1}{16}$ -inch units, change to feet and we have the length of the pond. This may be verified by using a different base line and proceeding as before.

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APPENDIX H.

**REPORT ON SPECIAL SCHOOLS FOR DEAF,
BLIND AND FEEBLE-MINDED.**

COMPILED BY

JOHN T. PRINCE, AGENT OF THE BOARD.

SPECIAL SCHOOLS.

In accordance with the provisions of chapters 39 and 87 of the Revised Laws and chapter 446 of the Acts and Resolves of 1904, the Commonwealth provides for the care of children who, on account of their physical or mental condition, are unable to attend the public schools. The institutions to which these children are sent are as follows:—

1. The American School at Hartford, Conn., for the Deaf, JOB WILLIAMS, L.H.D., Principal.
2. The Clarke School for the Deaf, Northampton, Miss CAROLINE A. YALE, Principal.
3. Horace Mann School for the Deaf, Boston, Miss SARAH FULLER, Principal.
4. Sarah Fuller Home for Little Deaf Children, Medford, Miss ELIZA L. CLARK, Matron and Principal.
5. New England Industrial School for Deaf Mutes, Beverly, Miss MARTHA O. BOCKÉE, Superintendent.
6. The Boston School for the Deaf, Randolph, THOMAS MAGENNIS, Superintendent.
7. Perkins Institution and Massachusetts School for the Blind, Boston, EDWARD E. ALLEN, Director.
8. Massachusetts School for the Feeble-minded, Waltham, Dr. WALTER E. FERNALD, Superintendent.
9. Massachusetts Hospital School (for Crippled and Deformed Children), Canton, Dr. JOHN E. FISH, Superintendent.

THE AMERICAN SCHOOL FOR THE DEAF.

REPORT OF JOB WILLIAMS, PRINCIPAL.

To the Board of Education.

The whole number of pupils under instruction during the year was 161,—101 boys and 60 girls. Of these, 54—35 boys and 19 girls—were from Massachusetts. No class graduated at the end of the year, but 18 pupils—15 boys and 3 girls—terminated their connection with the school. Eleven of these—10 boys and 1 girl—were Massachusetts pupils.

Six of the 10 boys left to go to work; the other 4 for various reasons.

Not a few parents fail to appreciate the educational advantages freely offered to their children by the State. They appear to think that if they have learned to express their ordinary wants in intelligible though defective English, and have acquired a little knowledge of numbers, they are qualified to take up life's duties and help support the family. They do not realize that two or three more years in school would be doubly valuable to them. It is the same difficulty that is met with everywhere in the public schools.

Another thing to be contended with is the constant pressure to get children into school too young. Many applications are received to have children admitted at five years of age, and some still younger. Deaf children are not as mature as hearing children of the same age. At five years of age they are not able either mentally or physically to do the work which ought to be done in the first year at school; so they are apt to get into bad habits of mind. It will be far better for them in the end to start a year or two later, work more vigorously, form better habits of study and get better results.

The past year was a prosperous one. Good progress was made in the various studies in the schoolroom, including speech and lip reading. Increased skill was acquired in sloyd work and cabinet making by the boys and in cooking and dressmaking by the girls, and at the end of the school year there was a very creditable exhibition of finished work.

THE CLARKE SCHOOL FOR THE DEAF, NORTHAMPTON.

REPORT FOR THE CORPORATION.

To the State Board of Education.

The number of pupils enrolled in the Clarke School for the Deaf during the past year has been 150. Of these, 108 were supported by the State of Massachusetts, 11 by the State of Vermont, 6 by New Hampshire, and there were 25 paying pupils. The health of the school has been usually good, and the work has been prosecuted with the ordinary success. Two pupils were graduated from the school in June.

The normal pupils numbered 10, and all of them have easily secured positions in good schools. Thus for two or three years the beneficent influence of this foundation has been widely extended, and, if the normal training could be continued, would be strongly felt in time in every State in the Republic.

The subject which has been uppermost in the minds of the corporators since the American Association for the Promotion of Teaching of Speech to the Deaf asked the Clarke School to establish a class for the training of teachers, in connection with its ordinary work, has been the need of enlarged facilities, especially for the class-room instruction of the school. The hope that individual benefactors would perceive our needs and come to our assistance has thus far been disappointed. Can the State, which has profited so largely by our endowment and plant, afford to allow the school to abandon the normal training, or permit the pupils and teachers in the school longer to suffer under the limitations which make the daily work difficult? The hundreds of thousands of dollars from the income of the fund and the interest on the plant during the last forty years, devoted to the training of hundreds of pupils and scores of teachers, for which no recompense has been received, constitute a standing and just claim on the gratitude of this Commonwealth. . . .

With the increasing cost of personal service and foodstuffs, with the readiness existing on the part of State institutions to entice our trained teachers away, and the consequent necessity of raising salaries to keep up our standards, the expenses of the school are constantly growing greater. The deficit for the past year amounts to \$3,661.72. The corporators think that the time has come when the State, whether aiding us in the matter of a building or not, should pay the entire cost for each pupil for instruction and keeping. That cost has been this year a little over \$400. If the State had paid this year that amount for each of its wards, our receipts from the treasury of the Commonwealth would have been nearly \$12,000 more than they were. What reason is there why this corporation, which has turned in for many years \$15,000 (it has averaged more than that amount) toward the training of Massachusetts pupils, should continue indefinitely to relieve the wealthy State

of Massachusetts from paying the full cost of every pupil's maintenance and training? We would gladly accept, as at present, three fourths of the annual cost as payment in full if we were able, but it is time now that for the constantly arising needs of the school there should be a margin of income which could be used to supply these needs. It is probable if the uniform rate of tuition were fixed at \$400, pupils from other States might be less numerous, but if it is just, as it surely is, that Massachusetts should pay us approximately what each pupil costs, it would certainly be right that other States should do the same. If the total number of pupils diminished somewhat, we should still have something of a remainder to meet constantly arising new expenses. If we had been able to reserve even half of the income of our fund for the last five years, we should have had the means of purchasing land, greatly needed for the expansion of the school. If we could keep permanently so much of a margin above our annual expenses, we should in the future have a sense of security for the meeting of such exigencies as we have never yet enjoyed. But without large and prompt aid, far beyond any increase of income, this noble work will continue to suffer for the lack of adequate rooms for its pupils, and must, for that reason, surrender the honor of conducting the first normal school established in this country for the training of oral teachers of the deaf.

Will the State of Massachusetts permit this condition to remain unremedied?

The corporation gratefully acknowledge a legacy of \$2,000 from the late Miss Augusta Wells of Hatfield. Such a gift brings the assurance that there are hearts keenly alive to the limitations and needs of our pupils and minds not insensible to the great work done in our school. All of which is respectfully submitted for the corporation.

FRANKLIN CARTER.

Extract from the Principal's Report to the Board of Corporators for the Year ending Aug. 31, 1908.

The number of pupils enrolled was 150. Of these, 49 were in the grammar department, 56 were in the intermediate department and 45 were in the primary. Of the whole number, 108 were admitted on

warrants issued by the Massachusetts Board of Education, 11 were sent here at the expense of the State of Vermont and 6 by New Hampshire; the remaining 25 were here at the expense of their friends. Of these last, 1 was from New Hampshire, 4 from New York, 1 from New Jersey, 4 from Ohio, 3 from Maryland, 1 from Pennsylvania, 2 from Indiana, 1 from Michigan, 2 from Colorado, 1 from Arizona, 3 from California, 1 from Canada, and 1 from Mexico.

The industrial work of the school deserves fuller recognition than we have sometimes given it. The boys of the intermediate grades have from three to five hours per week in the sloyd room under a thoroughly well-qualified teacher. The upper primary grades have two hours under the same instruction. A large amount of excellent work is done, and skill of hand and habits of exactness, perseverance and orderliness are formed. At the Christmas vacation, and at the close of the year, each boy is allowed to take home with him all the articles he has made. On entering the grammar school the boys leave the sloyd room and begin work in the cabinet shop, where they receive instruction ten hours per week. The tables, bookcases, desks, chiffoniers, sideboards and clock-cases made by the boys in ash, oak, cherry and mahogany are most creditable pieces of work. In most instances the boy who makes such an article takes it home, paying only for the cost of material used. This adds greatly to the zest with which the work is done, and, consequently, to the amount of real gain to the individual boy. A lesson each week is given in wood carving by a special teacher, and the pieces of carving become parts of articles made in the cabinet shop. The girls of the grammar department share in the instruction in wood carving and are also taught sewing and cooking.

The gymnasium work occupies for the older girls not less than three hours a week, while the older boys have additional time for basketball, bowling and athletic exercises. The intermediate classes have from two to three hours per week, while in the primary a short daily exercise is given each class in its schoolroom by the gymnasium instructor.

Two weeks before the close of the year in June the summer normal class began its work. There were 21 members present, representing 12 different States. All had had more or less experience in teaching the deaf, and came prepared for earnest work. The presence of some who had had long and successful experience in teaching added greatly to the interest of the class, but impressed upon us afresh the demand for more advanced work than is possible in a class of such varying knowledge and experience. Advanced work in phonetics and ear-training carried on through visible speech would be of great interest and value to such students. The time must soon come when a summer school will offer at least two courses of study,—one for those who have had but little experience in teaching and another for those who have studied more fully and have practised longer.

During the little more than twenty years of its existence there have been graduated from our normal class 113 students. Of these, 40 have taught for a longer or shorter period in our own school. Of the whole number, 20 have married, 8 have gone out of the work because of ill health or for other reasons and 2 have died. There are few States in the Union in which one or more of them have not taught, and 16 have eventually held some supervisory position, either that of principal of a school or teacher in charge of a department in one of the larger schools.

By special request the principal furnishes the following detailed account of the work of the school in industrial training: —

Realizing that the greatest needs of the deaf child are power of expression and communication, as well as fuller mental development, we have always kept the five hours of the school day intact for the acquisition of spoken and written language and the studies of the ordinary elementary school course, and have relegated so-called industrial work to the out-of-school hours, giving every child one or two hours each day of this training.

One of the advantages of a boarding school for a considerable percentage of our pupils is that boys and girls may, in the most natural way, engage in the multitudinous helpful activities of a systematically conducted household. Each child, according to his age and capacity, assists in the care of his own bedroom, and takes his small but regular share in the care of the common play rooms, sitting rooms, study and school rooms, while the older boys are responsible for the care of shops and gymnasium.

In the primary department — containing the two lower grades of the school and the preparatory class — the following exercises cover the work in hand training, occupying from two to three hours per week: —

Cultivation of touch, — form and vibration.

Bead-stringing.

Slat-weaving.

Winding.

Hand work preparatory to sewing and weaving.

Form work (outline and mass), using rice, lentils, beans, seeds and shells.

Freehand cutting.

Paper folding.

Drawing, — black and white and in color.

Clay modeling, — forms of fruits, vegetables, toys, beads, pottery.

Coloring clay work and forms cut freehand.

Paper construction, — boxes, baskets, articles of furniture.

Sloyd for the older boys in the department.

In the intermediate department, embracing grades from three to five inclusive: —

Drawing one hour per week.

Sloyd three to five hours per week for every boy.

Wood carving for a few of the older boys.

Cabinet work for a few of the older boys.

Sewing for girls, one hour per week.

In the grammar department the girls are taught: —

Drawing one hour per week.

Wood carving one hour per week.

Sewing — plain sewing, use of machine — two hours per week.

Cooking one hour per week.

The boys are taught: —

Drawing one hour per week.

Wood carving one hour per week.

Cabinet work one and one-half hours per day.

Each boy may — on payment of the cost of material — become the owner of the chair, table, desk, sideboard or clockcase which he has made. The policy of introducing a number of trades, and assigning a part of our boys to each, has seemed to us unwise for many reasons. We have judged it wiser to confine their industrial training to the use of a single material and that preferably wood. This training, added to the mental development which they gain, will prepare them to make a wise choice of occupation and fit them to succeed in it. Naturally, in a manufacturing State like this, many of our boys will take up the same work as that in which their fathers and brothers are engaged, and for which the skill of hand and eye and the habits of industry inculcated here will help to fit them.

HORACE MANN SCHOOL FOR THE DEAF, BOSTON.

MISS SARAH FULLER, PRINCIPAL.

REPORT OF MR. WALTER S. PARKER, ASSISTANT SUPERINTENDENT OF PUBLIC SCHOOLS, BOSTON.

To the State Board of Education.

The school year opened on Sept. 11, 1907, with 132 of its former pupils. During the year 26 pupils were admitted, 8 left the school and 1 died, making at the close of the year in June, 1908, 149 pupils. Seven boys and 1 girl, having com-

pleted the work as arranged for the eighth grade in the Boston public schools, were graduated in June. All of these pupils would gladly have taken advanced work had not the need of economy in the use of money in the school department prevented a contemplated plan for further instruction from being considered this year. Whenever a post-graduate course of study for the pupils of this school is arranged, it should be done with the approval and under the direction of the Board of Superintendents, in order to keep the pupils closely in touch with the studies and aims of their hearing brothers and sisters, and to stimulate ambition to be as well prepared as they to meet the demands of the business world when they must become self-supporting.

The Educational Association has not only continued to serve the school by weekly afternoon classes, but has generously given money to meet the cost of out-of-school instruction for a number of pupils needing individual help in one or more branches of study. The results of this timely aid have been most gratifying, being evident in an increased interest in class work and in a commendable desire to take higher rank in school.

Each year brings to this school pupils whose partial deafness has attracted little attention in the earliest grades of schools in which they have been placed unless it be to stamp them as dull, heavy, listless children, who should be relegated to schools for the mentally deficient. The size of classes and the lack of knowledge of varying conditions of deafness among children are explanations of this apparent injustice to partially deaf pupils, but to prevent an almost irrecoverable loss of school time for such pupils careful observations of "stupid ones" should be urged upon all persons who are preparing for work in elementary schools. Many instances could be cited of pupils whose admission to the Horace Mann School has been delayed, because of a misunderstanding of their needs, until the proper age for elementary work has been passed. Fortunately, no age limit debars them from the privileges freely offered by this school, and these, with the added help of out-of-school instruction provided by the Educational Association, enable them to acquire a rudimentary education.

The pupils in this school, from the lowest grade to the highest, justify the words of a writer upon the education of deaf children, who says:—

We do not believe the frequent poverty of the language used by the deaf to be due to any inherent *natural* deficiency of ideas or mental power. The success, often achieved by them, in the direction of art and skilled labor, in which their lack of language is no effectual bar to visible expression in form, color or mechanism, precludes the thought. And the fact that there are deaf persons quite capable, by intelligence and expression, of holding their own in the hearing world, justifies the belief expressed. If the intelligence of the deaf be developed in accordance with the fixed laws of mind, the quality of their language (not necessarily at any given age, for they have much to make up) may reasonably be expected to become such that they are able to express themselves without risk of misunderstanding. Any belief inspired by lower aims than this is not worthy of the purposes we have in view.

The whole system of our work must be made to conform, as nearly as it can, with the natural processes of the normal type, so that we may advance our pupils more nearly to the happiness of intellectual independence and self-help.

SARAH FULLER HOME FOR LITTLE DEAF CHILDREN,
MEDFORD.

FROM THE TWENTIETH ANNUAL REPORT OF THE EXECUTIVE COMMITTEE; JUNE, 1908.

Twenty years have passed since Mrs. Francis Brooks founded this home for the care and instruction of deaf children of tender years. The results of the experiment of giving systematic training in visual speech at about the time when hearing children begin to speak have demonstrated its wisdom.

The home life of the school has had a most beneficial effect on the health, habits and manners of the children, and this, together with the constant discipline of their training, has in almost all cases strengthened their characters.

We are most fortunate in having the services of Miss Clark, the matron, and Miss Aymar, the teacher of articulation, for both have devoted themselves enthusiastically to their work, and have been rewarded by success in their efforts.

During the past year 14 children have been under the care of the home, 2 of these as day pupils. One of the day pupils has gone to Nova Scotia with her parents and 2 of the resident pupils have entered the Boston School at Randolph, Mass.

The home could give instruction to a larger number of day pupils, and the Board hopes that parents who wish to have their children benefit by its instruction will take up their residence in Medford.

Through the death of many of the early friends of the home our annual subscriptions have fallen off, and it is greatly to be desired that the number of such subscribers should be increased, so that we may be less dependent upon sporadic aid.

Our invested funds are somewhat over \$56,000, but to assure the permanency, or, at least, the full usefulness of this charity we should have a foundation of not less than \$75,000.

EDMUND M. WHEELWRIGHT.

NEW ENGLAND INDUSTRIAL SCHOOL FOR DEAF MUTES.

FROM THE REPORT OF THE TRUSTEES.

The management and maintenance of the school have continued during the past year without marked change of character. Minor changes are of course constantly necessary, and it is thought that in this way the efficiency of the school is being steadily advanced.

We are sorry to record the resignations of two of our teachers, Miss Mutch and Miss Bretz, both of whom had, by their experience in our school and their unremitting industry and care, reached a point of great usefulness. It will necessarily be some little time before their successors can make the readjustment quite complete. Incidentally it may be stated that both of these resignations were offered for private reasons, wholly unconnected with school matters.

For the last few years it has been apparent that the most pressing questions in future were likely to be of a financial nature. Much of our doubt in this direction has been dispelled by the announcement that under the will of Mrs. Julia M. Marsh, late of Boston, the school will receive a legacy of \$50,000.

The income only of this legacy will be available for our purposes, but this will be so considerable as to greatly relieve our necessities. The increased cost of living, which has been a matter of almost universal comment, and the general additions to our expenses, which result from our efforts to improve housing and maintenance conditions at the school, together with our efforts to broaden and perfect the course of instruction, all have tended steadily toward financial difficulties. Even the Marsh bequest will not enable us to accomplish many things which it has been for some time apparent ought to be accomplished. Certain repairs and alterations in our buildings are highly desirable, our present heating apparatus is antiquated and wasteful, and in the way of general teachers' equipment there is much which could be done to the great advantage of the school's work and condition. Progress can be made in these directions if the supporters of the school continue the interest and help which they have afforded us in the past. Our warmest gratitude is certainly due for the unexpected and generous gift to the school found in the will of Mrs. Marsh.

We take this our only opportunity officially to offer our thanks to the great number of people who have in countless ways helped make it possible for us to continue to carry on the work of the school, and give to the deaf mutes as many of the benefits of speech and hearing as it is possible for them to secure.

*Extract from the Annual Report of the Principal of the School,
December, 1908.*

There have been 31 pupils under instruction during the year, of whom 14 were boys and 17 were girls. The standard of health has in general been excellent, subject of course to the inevitable minor ailments, the single exception being a case of pneumonia. Dr. George J. Hill has given the school his professional services, and his care and attention have been of the greatest benefit. The services of Dr. E. B. Dudley in caring for the children's teeth, and of Dr. C. W. Haddock as oculist, have also been much appreciated. Mrs. William C. Loring has kindly offered to provide the glasses necessary in a number of cases.

The work in the schoolroom is of the same general nature as heretofore, although it becomes of course a little better regulated and productive of better results from year to year. Books suited to the tastes

and understanding of the pupils have been purchased as found necessary, and reading under the supervision of the teachers has been cultivated, in order that they may acquire the habit of reading, which is so valuable to the deaf.

The industrial classes are an important feature of the school work, as it is our aim to prepare the pupils for practical application, as well as to aid them in the matter of general intellectual training. Excellent progress has been made in the sloyd work, and during the short time when this was omitted the boys were successfully engaged in repairing and altering a quantity of furniture given the school by the Beverly Hospital Corporation. Instruction in shoe repairing has been gratuitously furnished by Mr. F. W. White, and three of the boys are now learning the trade. Good work has been done in caning chairs. The girls all receive regular instruction in sewing, the work being graded to suit their various abilities, and the result has been a very considerable volume of clothing, etc., of all sorts. Each of the older girls has finished one garment in hand embroidery.

BOSTON SCHOOL FOR THE DEAF, RANDOLPH.

FROM THE REPORT OF THE SUPERINTENDENT.

To the Massachusetts State Board of Education.

The ninth year of the Boston School for the Deaf, at Randolph, Mass., closed on June 17, 1908, with an attendance of 103 pupils, — 48 boys and 55 girls. The progress made by the pupils in all their studies was very satisfactory. The course of study is similar to that in all grammar schools. The health of the children is all that could be desired. The services of a doctor are seldom needed. We attribute this in a great measure to the large farm attached to the school, which gives plenty of room for outdoor exercise as well as an abundant supply of vegetables for the table. Our crop is large and varied, and seems to take the place of drugs in maintaining a remarkably high standard of good health. Peas and beans, radishes and lettuce, sweet corn, rhubarb, turnips, carrots, parsnips, beets, cabbages and potatoes, each served in its season and plentiful in supply, make the doctor's visits to the school few and far between. Hot and cold baths at frequent intervals also add to the condition of general good health.

The recreation ground is of many acres, and the boys and girls romp and play in the fields without any limit of area.

The Norroway Brook flows through the farm and gives a large and safe surface of ice for skating in winter. The hill on which the school is built furnishes a long and smooth coasting ground, and nearly every pupil has his own sled or shares the use of one with another. North Main Street, on which our property is situated, is a State road and is kept in good condition, and furnishes an opportunity for long walks in the spring and autumn seasons. The gymnasium in the school yard, with its ring-swings, seat-swings and ladders, develops the muscles of the arms and legs, and does its part in the physical development of the children. The military company, with its drill in marching and in the manual of arms, gives an agreeable variety of exercise to the 35 boys who form the company, whose evolutions call forth demonstrations of applause whenever they are given in public, as on Memorial Day.

The children thus live an out-of-door life, except when in the class room, the refectory and the dormitory. In fact, they leave the school at the close of the year in much better health than when they return to school after vacation. Combining thus both expert teaching in the class rooms and an abundance of exercise in the open air, we reach that much to be desired condition so often sought in vain in many schools, — a sound mind in a sound body. But even a sound mind and body do not of themselves make the perfect man or woman. They tend in that direction but need cultivation. Like trees and shrubs and plants and vegetables, everything else that grows needs to be directed to a proper end. We train the minds of these children that they may make good use of the knowledge given them. We train their bodies that they may be able to resist disease. In addition to this our great desire is to add to this mental and physical training the formation of a good character, which, after all, is the goal of all education. Success in this line makes education akin to creation in this, that it makes out of nothing an individual character that otherwise would remain undeveloped, — a character that properly guided is always good and progressive in goodness. To bring about this most desirable end, and to avoid the formation of a bad character or a tendency to it, a motive must be given, and children must be taught to be good through this motive. Excellence in study and the ac-

quisition of knowledge in the class room have no bearing on good conduct. In the school should be laid the foundation of a good Christian life if the boys and girls of to-day are to be Christian men and women of to-morrow. . . .

Necessarily the development of character is a slow process, especially with deaf children, but perhaps all the better for being slow because it is correspondingly sure. The process must be planned at the very beginning of school life. In the play room, at recreation in the yard, in the refectory, and wherever the children come together this most important part of their education must begin. An experience of nine years in educating deaf children has taught us that this system of character building perfects our course of study and makes it nearly all that could be desired. We do not hesitate to say that we have met with success. Our work has been a labor of love as well as one of duty, and this has, we believe, helped much to our success. Our children and teachers form one large happy family. The children are content. They have no time, and they have been so distracted with other busy things that there is no opportunity, to bewail or repine at their unhappy lot. They are as eager to study as to play. They are obedient to their teachers and they respect authority. They love their teachers and their teachers love them, and this mutual affection perhaps as much as any other one thing renders them amenable to discipline, progressive in knowledge and pliable in the formation of that character which is or should be the end and aim of all theories and methods of the education of children.

REPORT OF THE TREASURER.

Receipts.

State appropriation,	\$25,353 77
Donations,	235 04
Rents,	48 00
Miscellaneous,	11 82
Interest on deposit,	38 47
Advanced by treasurer,	10,000 00
Cash balance Oct. 1, 1907,	4,371 87
	<hr/>
	\$40,058 97

Expenses.

Maintenance of school,	\$11,096 80
Maintenance of property,	7,205 94
Property and miscellaneous payments,	9,054 50
	<hr/>
	\$27,357 24
Balance cash on hand June 30, 1908,	12,701 73
	<hr/>
	\$40,058 97

THOMAS MAGENNIS, *Treasurer.*

PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL
FOR THE BLIND.

REPORT OF EDWARD E. ALLEN, DIRECTOR.

The leaven of the year has been the consciousness that the Perkins Institution would move at no distant day to its promised land. The trustees have secured as the new site for the school and its kindergarten department a thirty-two acre estate on the Charles River at Watertown, and they have received such money contributions towards the construction as would indicate that additional sums must be forthcoming.

The institution is likely to remain where it is for two or three years; but, even while waiting for complete reconstruction, there has been begun the building up of a new spirit through increased personal contact between director and pupil, as well as between pupil and teacher, the chief means being the director's talks to the school after morning assembly, private chats with the individual pupils, the installation of attractive yard apparatus for open-air play and an insistence that there shall be teacher leadership on the playgrounds as well as in the class rooms. In a word, the new emphasis is physical, mental and moral school hygiene.

Such emphasis means increased sympathy and co-operation, and it has meant just this in the Perkins Institution. Not only has no pupil been sent away for misconduct, but the usual penalties and punishment for rule breaking have most evidently lessened both in number and in severity. Of course they have;

they always will where there is true understanding between the teacher and the taught. Boys, for example, who usually give most trouble are in the middle adolescent stage. They have superabundant energy and don't know how to spend it. The correct policy with them is not repression but change and expansion of opportunity. The new invasion of the yards by swings, giant strides, trolley coasters and "Great Easterns" has not only drawn out of doors these very boys but has brought them from the dark halls and holes and lavatories of the present school building. The salutary effect of this sort of thing is self-evident. It is a recognition of the modern responsibility not only for correction but also for prevention.

The principal teachers have somewhat reformed the course of school studies. Much of the pure oral instruction necessitated by the dearth of text-books in a type tangible to all is being gradually supplanted by definite text-book study from already existing books in Braille, a large number of which have been purchased from the American Printing House for the Blind.

In line, too, with modern notions, the trustees have appointed attending dentists and a pediatrician for all departments of the school.

Following out the above principles, there have been made a few material changes at the upper school. For instance, the girls' dining rooms have been converted into sitting rooms, and they appear as dining rooms only at meal times. They have been furbished and brightened, to make them comparatively cheerful and attractive. The older boys have been entrusted with the use of a large room for their sitting room after school hours. This large space, which was heretofore only the "band room," has not been abused. Why should it be by young men who realize that it is to their interests and comfort to keep things tidy and quiet there? Adjustable desks and chairs have been put into the schoolrooms at the lower school at Jamaica Plain. To be sure these rooms now look more like schoolrooms than before, but it was seen that growing children needed school furniture that could be made to grow with them.

The music department of the whole school has been reorganized under a single head. The selective plan has been insti-

tuted, by which only those pupils who manifest ability for music are kept in the department. Instead of the time, energy and expense consuming school orchestra of 35 pieces there has been formed a mixed chorus of 70 voices; and if the value of such an organization is in proportion to the number taking part in it, then this chorus is of double the service which the orchestra was. It is believed to be of even greater value, directly and indirectly, because it frees hours for special work which the orchestra left no time for. Already some 20 children of the neighborhood go to the institution to receive free piano lessons from its advanced music students, who teach under the supervision of their own instructors. Inasmuch as practically every one of the graduates, who follows music for a livelihood, does so through teaching rather than through performing, it would seem as though a normal music course could scarcely be omitted from the scheme of practical instruction.

The other departments have kept on in pretty much the usual way, though perhaps most of them are working with renewed spirit. The library continues to circulate very many books to outside readers as well as inside. To feed the reading hunger of the outside or adult blind people, the Howe Memorial Press has this year printed in Braille a lot of short stories, issued these in small editions and turned them over to the library. Some 400, or about half the number of books issued by the library in June for summer reading, were of these short stories. The Howe Memorial Press will undertake more and more to serve as a supply house for appliances and reading needed by the blind of any age or station.

The four teachers who travel about to instruct and encourage the adult blind at their homes report a very successful year. The number of blind persons reached in this way is 216. Though this is a much needed work, and one in which the authorities of the institution are thoroughly interested, it is their feeling that it can be better and more economically conducted by the Massachusetts Commission for the Blind.

The three deaf-blind pupils have been continuing their work at the school as last year. All are interesting cases, only Thomas Stringer's case seeming to demand a change; there has been given to him this year not only a man teacher — Tom is

twenty-two years old — but a teacher who is deaf. There is no question that such a companion, if he is the right one, and Mr. Pinto seems to be such, may be extremely helpful. Mr. Pinto is young, athletic and enthusiastic, and if his pupil fails to improve greatly under such awakening treatment, it will not be the fault of the teacher. He is putting Tom in touch with the life of normal boys, — a life hitherto unknown to him.

Now it is comparatively easy to teach and train deaf-blind children since the way was shown by Dr. Howe and others. The serious and unanswered question seems to be, “What should be done with them after they have been educated as far as they can be at our schools?”

At the beginning of the present school year, Oct. 1, 1908, there were 327 blind persons connected with the Perkins Institution, representing a gain of 10 over the previous year. The number is made up as follows: —

Pupils in the boys' department,	86
Pupils in the girls' department,	89
Children in the kindergarten,	119
Teachers, officers and other employees,	13
Adults in the workshop,	20

Beneficiaries of Massachusetts: —

At the beginning of the year (Oct. 1, 1907),	185
Admitted during the year,	31
Transferred from another State,	1
Discharged during the year,	26
At the present time,	191

INSTRUCTION OF THE ADULT BLIND AT THEIR HOMES.

FROM THE REPORT OF THE TRUSTEES.

To the State Board of Education.

The work of teaching the adult blind in their own homes has been carried on along the general lines adopted at the outset. In the interests of greater economy the *local* plan has been introduced into the work this year. The State has been divided among the four teachers, so that each has a definite territory which does not in the least overlap that of another, both men

and women teachers giving instruction in all subjects to all the adult blind within the given district, whether men or women. Thus, Miss Garside teaches in Boston and all the adjoining towns and cities within a limited radius. Miss Hayes visits the entire southeastern portion of the State, with New Bedford, Fall River, Taunton and the adjoining country. Mr. Schuerer, with headquarters at Springfield, covers the whole of the western part of the Commonwealth, a territory which, though extensive, contains proportionately fewer blind people than does the eastern section. Mr. Vars takes the portion of Massachusetts north and east of Boston, extending as far west as Worcester and following the Blackstone River south to the Rhode Island line.

The women teachers have found no difficulty in mastering and teaching all the forms of handicraft required for their pupils of either sex, but the men are not equally successful in acquiring the feminine arts, and their work has at times been supplemented by aid from their women guides.

First and foremost come lessons in learning to read embossed print, — Moon's type for all those who do not seem to be equal to beginning with Braille, but Braille first or last, wherever practicable, on account of the larger variety of the material in that system.

With reading as a stepping-stone, the teachers encourage their pupils to go on and on from the simpler to the more complicated forms of handicraft, — knitting, crocheting, netting, basket making, whatever may serve to give pleasure to the worker and contribute, even if ever so little, to self-support, that most ardent desire of the blind. The sewing and knitting done by the women pupils should have special commendation. Many have learned to patch and darn, to hem and to make aprons and skirts by hand; and with the sewing machine, using hemmer, gauge and tucker, they have completed many kinds of useful articles. They have knitted face and dish cloths, reins, baby's jackets, hoods and skirts, sweaters, wristers, house and bed slippers of silk or worsted, shawls, fascinators, mittens and gloves. The amount of \$402.75 earned by the pupils the past year includes a goodly sum made by the women through their unaided efforts.

Those who once knew how to write are shown how to do so still by means of a pencil and a grooved board, which keeps the lines straight, or to write Braille on a Braille slate, or, where it can be afforded, the Braille writer. Any ordinary typewriter may be mastered by the blind, using the all-finger or touch method. This point of contact with the seeing world is a valuable one, and does much to help those who can own such an appliance to retain the normal interests of the community in which they live.

The teachers have also at times given encouragement, suggestion or even instruction in the performance of household duties, and, indeed, in every way have sought to inspire in their pupils a desire to enter freely into the life around them.

On several occasions the instructors have turned aside from their beaten paths to take up the very important task of addressing some organization whose members are desirous of knowing about this work.

The management of the Perkins Institution has been glad to add to its educational work this means of service to the adult blind; but, whereas, since its inauguration, there has been established an organization for the direct benefit of the adult blind, the Massachusetts Commission for the Blind, it seems to us that this branch of work belongs properly to that body; and the commission, sharing our views, has generously come forward with an offer to accept the responsibility of this undertaking in its present scope and continue the mission of hopefulness to adult pupils which is now being carried to them by this means. Therefore it is probable that we shall take such measures during the present session of the State Legislature as we trust may effect the transference of this work to the Massachusetts Commission for the Blind.

The names and addresses of the teachers are as follows: Miss Lillian R. Garside, No. 4 Burroughs Place, Boston; Miss Lydia Y. Hayes, Orleans; Mr. Edward Schuerer, No. 15 Wariner Avenue, Springfield; Mr. John Vars, No. 72 Huntington Avenue, Boston.

Statistics. — Number of blind persons visited, 89; number taught, 82; number refusing instruction, 7; number enrolled Nov. 1, 1908, 104. Number receiving instruction: in the several

systems of reading, 73; writing, 22; geography, 1; spelling, 1; manual alphabet, 1; simple gymnastics, 2; musical Braille, 1; tuning pianofortes, 1; sewing, 22; knitting, 21; netting, 2; tatting, 1; use of the sewing machine, 4; basketry, 4; reseating chairs with cane or pith, 24; braiding rugs, 1; dusting, 1; ironing, 1. Amount of money earned by the pupils, \$402.75. Summary of work done by the teachers: calls made, 846; lessons given, 2,069; miles travelled, 43,336.

THE MASSACHUSETTS SCHOOL FOR THE FEEBLE-MINDED, WALTHAM.

EXTRACTS FROM THE REPORT OF THE SUPERINTENDENT, DR. WALTER E.
FERNALD.

	Males.	Females.	Totals.
Number present Nov 30, 1907,	715	519	1,234
Admitted during the year,	187	94	281
School cases,	140	48	188
Custodial cases,	47	46	93
Whole number of cases during the year,	902	613	1,515
Discharged during the year,	126	54	180
Died during year,	17	7	24
Number present Nov. 30, 1908,	759	552	1,311
State patients,	121	128	249
City and town patients,	203	187	390
Private patients,	28	22	50
Massachusetts school beneficiaries,	368	183	551
New England beneficiaries,	31	27	58
Invested funds, supported by,	8	5	13
Daily average number of patients,	720	523	1,243
Number Nov. 30, 1908, at school,	578	552	1,130
Number present Nov. 30, 1908, at colony,	181	-	181
Applications during the year,	-	-	528

Of the admissions, 137 were young, improvable pupils; 53 males and 42 females were over fourteen years of age, — a large proportion of these adults being cases capable of much improvement; 28 were feeble physically and of the idiotic type; 15 were cases of spastic paralysis; 11 were of the Mongolian type of idiocy; 6 were insane and not feeble-minded; 5 were totally blind; 4 males were of the semi-insane criminal type; 4 boys had shown mania for setting fires; 4 were hydrocephalic; 2 were cases of sporadic cretinism; 1 was a case of pseudo-muscular hypertrophy; 1 was totally deaf. Some of the cases appeared in several of the above groups.

Of the 180 cases discharged during the year, 48 were kept at home by their friends for various reasons; 4 were kept at home to attend public school; 2 went to work for wages; 4 ran away and were not returned; in 4 cases the parents moved to another State; in 2 cases the family went to Europe; 1 was transferred to the new Maine school; 1 was discharged as insane and not feeble-minded.

Fifteen cases — 1 male and 14 females — were committed to insane hospitals. Six of these cases were admitted during the year, and were insane and not feeble-minded when admitted. The other cases illustrate the fact that the imbecile is very likely to develop quite typical forms of insanity as a part of his life history.

Sixty-two epileptics — 37 males and 25 females — were transferred to the State Hospital for Epileptics at Palmer by order of the State Board of Insanity. These epileptics, all over ten years of age, were difficult to classify with the feeble-minded, and their removal has greatly improved the classification of our patients. The epileptic patients themselves can be treated with much greater success in a hospital for epileptics.

Forty-five of the older boys were transferred to the Wrentham school by order of the State Board of Insanity. These boys were at once put to work assisting in the development of the new institution. . . .

The work of the school and training classes shows development and progress. An additional kindergartner has been added to the teaching staff, making better classification possible

Every child of school age is receiving the training which he seems to need.

The room formerly occupied by the hand work is now thoroughly and conveniently equipped for the training classes, with abundant equipment for the training of the special senses, color and form discrimination and hand training in great variety. Nearly all the school material in this department was made by our boys in the manual training room.

Especial attention is paid to finding a place in our community life where the graduates of the schools are given work in which the school training may be directly utilized and exercised. For instance, all the bedding, linen and clothing issued from our storerooms — thousands and thousands of individual pieces each year — is marked with pen and indelible ink by girls who were taught to write in our schoolrooms. Each of the kindergartners and class trainers has an efficient and happy assistant who is a graduate of the schools. One of these girls even assists with simple copying and clerical work in the office.

Physical training in the broadest sense will always be one of the most important means of improving the physical and mental condition of the feeble-minded. Every pupil of suitable age in the school receives regular physical training. Formal gymnastics, musical and rhythmical drill, military drill, the ordinary games of children, competitive games and athletic contests are used in great variety, under tactful and efficient direction.

In suitable weather much of this work is carried on outdoors. The new cinder running track on the athletic field is a valuable addition. The running races and other track events, and the baseball, football and basket-ball games, are eagerly contested, and do much to develop and interest our pupils. Even the larger girls have two baseball nines who play weekly games, with great enthusiasm.

The manual and handwork classes were transferred to the new manual training building at the beginning of the fall term. The boys' manual classes occupy the first floor. One room is devoted to sloyd; one to mattress and pillow making; one to actual making of useful articles of wood at separate benches; one to painting, brush making, sandpapering, net making, mat

making and cane seating; one to shoe repairing; and the "weave room" contains six hand looms, where the boys weave first-class crash for towels, and serviceable and attractive rag carpets. The convenient arrangement of separate tables and stock boxes for each industry greatly facilitates the systematic handling of the large numbers of boys who daily spend a short time at several of these occupations. This training is not for the brighter boys alone, but is successfully given to many boys who are not capable of strictly school work. As far as possible this manual training is directly applied towards the production of results which have practical intrinsic value. The needs of a large institution furnish an outlet for everything the boys make. The fact that the boy sees his handwork put to actual use is a most powerful incentive.

The second floor in the manual building is devoted to the girls' handwork classes. One large room makes a convenient domestic training room; one is a class room for teaching sewing; one has a spinning wheel, three knitting machines, three looms, tables for cutting, sewing and braiding rugs for rag carpets, a table for hand looms and a table for sewing braided rugs; another large room contains tables for separate classes in pillow lace making, basket making, knitting, crocheting, embroidery and fancy work, hooking rugs and a frame for net making. Each table is devoted to its particular industry, and holds the stock box for that industry, with the necessary materials, tools and appliances all ready for work. Each table is large enough to accommodate a class of twelve. The class comes in and is immediately put to work, with no time lost assembling material. A bulletin board on the wall at the head of each table or loom or machine shows the names of the pupils in each class, and the hour for that class. This organization permits a large number of pupils to receive the training, with no confusion and no loss of time. One class quietly follows another all day long. As with the boys, this hand training is applicable not only to the brighter pupils, but to many who will never be capable of being trained in the schoolrooms. The facilities afforded by this new building have enormously added to our power to develop our pupils.

In the domestic science room classes of girls receive accurate

instruction in ordinary housework. They are taught to wash dishes, to make a fire in the kitchen range, to brush the stove, to wash a potato, to properly boil or bake a potato, to prepare other vegetables, to cook a beefsteak or other meat, to make bread and even cake, to lay a table and to properly serve a meal. Some of the advanced classes will cook an entire dinner; one pupil builds the fire, one makes the soup, another cooks the vegetables, another the meat, dessert, etc.; one lays the table, and finally one waits on the table while the rest of the class sit down and enjoy the meal they have prepared. This class work is directly applied in the domestic economy of the school. The pupils who do the best work in the class room are promoted to apply their acquired skill in the various kitchens and dining rooms, to their very great pride and satisfaction. Some of them have developed a good deal of skill in simple cookery. Nearly all have ceased to regard kitchen work as mere drudgery.

THE MASSACHUSETTS HOSPITAL SCHOOL, CANTON.

EXTRACT FROM THE REPORT OF THE TRUSTEES.

It is gratifying to be able to report that, although the Hospital School has not been in operation a full year, the increasing number and the character of applicants for admission not only demonstrate the satisfactory nature of the institution, but indicate that the demand for accommodations will in time be greater than was at first thought probable. As many of the children asking for admission come from homes in which the parents are self-supporting wage-earners, and in some instances able to pay a moderate amount for the education of a crippled child, it is evident that if the benefits of the institution are to be given to these deserving cases, the school should be free, either in the rules of admission, the charge, the official record of the inmates, or in its discipline or management, from the character of a pauper institution. The school should be maintained and developed as a State industrial school of a special character, and as free from the stigma of pauperism as is State education from the reproach of a charity. It is a function of the Commonwealth.

In view of the demonstrated fact that city and town officials are very reluctant to assume or authorize the support of children in this school, even though such children may have a legal settlement in such city or town, and that even when such support is assumed the child thereby becomes a subject of city or town support, and in one sense a pauper, thus casting a shadow which is apt to continue over the child when it seeks an active part in the life of the world; and the further consideration that many parents of crippled children are so adverse to seeking public aid that they would sooner deprive their child of educational advantages, — the trustees suggest that the Legislature consider the advisability of State support and care for all children sent to the school, following the precedents of the Legislature heretofore adopted in reference to the insane and feeble-minded.

The State owes a duty to these children, who by reason of physical deformity are unable to receive proper education in the public schools, and yet are of sufficient intelligence so that under proper tutelage they can become self-supporting. It is for the Legislature to determine whether or not children whose parents are not able to pay for their proper care and tutelage should be cared for and educated at the school without in any way having cast over them the shadow of pauperism. . . .

Education. — The problem of education and industrial training of crippled children is regarded by the trustees of this institution as the most important part of its work until years of experience have demonstrated not only the wants of the cripples placed in a State institution, but also what occupations and training should be furnished in our community.

The experience gained in similar institutions elsewhere cannot be taken as an absolute guide in our community, as the demands of labor and the market vary considerably in our community from what exists in European centers. The Board of Trustees has left the educational problem for the present to develop along the lines which experience may show are likely to be most profitable. They have, however, provided for a primary education with the elements of industrial training, expecting to specialize at an early age, according to the degree of disability of the greater number of the inmates of the school,

and the possibilities of finding remunerative occupations for those graduating from the institutions.

As no children are admitted to the school unless, owing to the disability presented, education elsewhere is not obtainable, special conditions of hours of work are needed, and also suitable methods and hours of instruction. The character of play allowed, as well as the development or restraint of a play instinct, demands special consideration. The best selection of studies according to the condition and limited future life of the inmates is difficult, and can be determined definitely only after it has become evident from actual experience what are the most common disabilities among the children admitted, and in what occupations of life such disabilities offer the least impediment.

At present the children are furnished a primary school education, and in addition special instruction in sewing, in sloyd and elementary carpentry. Opportunities for work in cobbling and simple farm work are furnished. A more comprehensive system of industrial training with early specialization of children well grounded in the elements of education is contemplated by the trustees, now that its first working year has made clearer the demands which will be made upon the new institution.

FROM THE REPORT OF THE SUPERINTENDENT.

During the year 178 applications were received, and of this number 104 were admitted,—70 boys and 34 girls. There were at the end of the year 87 children,—60 boys and 27 girls, 1 boy being out on a visit, and 9 boys and 7 girls having been discharged. The maximum number at any one time was 90, and the daily average number, including the forty-five days period when there were no patients, was 48.5—. Of those discharged, 2 were capable of self-support, 2 were much improved, 8 were improved and 4 were not improved.

Many of our children are so badly crippled that their attendance at public school would be impossible, and all of them require an arrangement of school and recreation hours very different from that prescribed for normal children.

The great patience and sincere personal interest of those in charge of the several departments of the institution have enabled children whose health would permit to receive instruction

in various lines of practical work, including laundry and domestic work, sewing, cobbling, painting and carpentry. When thus usefully employed they are acquiring a breadth of elementary education which should enable us to determine into what special fields of labor their energies can profitably be directed later on. Steady progress has been made in the classes in sloyd, and boys who six months ago did not know the use of the simplest tool are now making really creditable articles, which they delight in showing to their friends as evidence of their advancement.

Of the 104 children admitted during the year, 61 were State, 28 town or city, and 15 private. While many of the public charges are doubtless made reimbursing cases by the towns and cities in which they are settled, it should be borne in mind that all such patients receive indirect support from the State in so far as the rate of \$3.25 per week is far below the actual cost of maintenance. There are many self-respecting parents of crippled children who have never received public aid, and are reluctant to appeal to the overseers of the poor for assistance; yet their own unassisted means are wholly inadequate to pay for the support of their unfortunate children away from home. Sometimes when they seek assistance they fail to receive it, as illustrated by the following case. A nine-year-old crippled girl, whose disability was such that the superintendent had requested her parents to remove her from the public schools, made application for admission to this school. The case was referred to the local board of the overseers of the poor, who refused to support the child at this institution, on the ground that the money at their disposal was not appropriated for educational purposes. This child could be supported at home by her father, but he realized that she was growing up in ignorance, without an inheritance of means to prevent her becoming a dependent in the future. I would suggest for your consideration this question of support, in the hope that the necessary steps may be taken so that children of this class may not be denied the education and care enjoyed by crippled pauper children.

Terms of Admission. — Crippled and deformed children of the Commonwealth between the ages of five and fifteen, who

are mentally competent to attend the public schools, are eligible for admission.

Feeble-minded and epileptic children will not be received.

Payments for the board of private patients must be made in advance, unless sufficient surety therefor is given.

The institution is located on Randolph Street in the town of Canton, about one eighth mile from the Blue Hill Street Railway and one and one half miles from Canton and Canton Junction stations on the New York, New Haven & Hartford Railroad.

Post-office address, Canton, Mass.

Applications for admission should be made to the superintendent.

APPENDIX I.

A LESSON FROM MEDICAL INSPECTION OF
SCHOOLS.

AN ADDRESS BEFORE THE AMERICAN SCHOOL HYGIENE
ASSOCIATION, CHICAGO, ILL., FEB. 24, 1909,

BY

GEORGE H. MARTIN, LITT.D.,
Secretary State Board of Education, Boston, Mass.

A LESSON FROM MEDICAL INSPECTION OF SCHOOLS.

Medical inspection of school children has been continued long enough and has become sufficiently widespread to justify some rather sweeping generalizations. No large group of children has ever been examined without finding numerous physical defects and disabilities, serious enough not only to affect their school work but to form a real handicap in their after efforts to secure a livelihood.

These results have been so universal as to warrant the assertion that a community which has not provided through its proper authorities for a thorough-going inspection of its schools is guilty of criminal negligence.

The aggregate amount of discomfort and pain experienced by school children is enough to awaken universal sympathy. The hindrances to school advancement and the consequent waste of effort and of money are matters of serious concern, but the ignorance which lies back of it all and causes it all is a matter of much greater moment.

When by school inspection it is discovered that of more than 400,000 children examined in the schools of Massachusetts 81,000 are defective in vision and 22,000 in hearing; when it is stated on reliable authority that 90 per cent. of the school children of Germany have defective teeth, and examination shows the same proportion in American towns; when 137 cases of adenoids are reported for a single city; when whole schools are infected with head-lice, — we get much new light on school problems, on the subject of backward children, and, perhaps, of delinquent children.

Then we consign the unfortunates to the care of the family physician, send them to the public dispensary or the public clinic, or send the school nurse to look after the cases in the

home, and by these means we patch up a few. Some glasses are provided, some teeth cleaned and filled, some adenoids removed, some heads shaved and petroleumized, and many children begin to know the joy of living.

All this is good. It is worth many times what it has cost. But is it enough? Have school people done all their duty when they have admitted the school physician and the school nurse to the sacred precincts of the schoolroom, when they have sent out the warning notices to the parents?

Supposing that all defects have been discovered and remedied, so that school life goes on without aches and pains. Must we go all over it next year and the next and forever? The Massachusetts law says that every child shall be examined annually for defects and disabilities. There is no statute of limitation. Is there any hope of limitation? Is there any mode of limitation? Or is the social mill to go on grinding out diseased and enfeebled children by the thousands indefinitely!

This is a more fundamental question than how we shall modify and adapt school work and school life to these defectives. That is an immediate and important question. But it deals only with symptoms, while it leaves the disease itself untouched. The disease is ignorance complicated by wilful neglect.

That the ignorance of the laws and conditions of health is less dense than it once was is undoubtedly true. The standard of intelligence in these matters has been slowly rising. When Horace Mann wrote his sixth report, in which he urged the necessity of instruction in physiology and hygiene, he satirized a school girl of the period: —

Shall a young miss of sixteen, elated with the idea that she is just finishing her education, study rhetoric, and analyze scraps of the speeches of Grecian and Roman orators, when she does not know that the fumes of burning coal will destroy life; and thinks, because she swallows her food and inhales her breath through her neck, that they both pass on to one common cavity in the chest, and hence concludes that respiration and digestion are functions of the same organ? Neither of the above is an imaginary or an extreme case.

Perhaps we are warranted in thinking that such school girls are not to be found.

When twenty years later Herbert Spencer sent out his book on education everybody knew that his gibes at the English country gentleman were based on facts, and that he might have included American gentlemen as well. He said: —

When the country gentleman has paid his daily visit to the stable, and personally inspected the condition and treatment of his horses; when he has glanced at his minor live stock and given directions about them; how often does he go up to the nursery and examine into its dietary, its hours, its ventilation?

The raising of first-rate bullocks is an occupation on which men of education willingly bestow much time, inquiry and thought. The bringing up of fine human beings is an occupation tacitly voted unworthy of their attention.

There is no doubt that more thought is being given to personal and domestic hygiene. There are more bath tubs and tooth brushes and clinical thermometers in family use; more family dietaries are prepared with regard to the laws of health; architects are more willing to make concessions in the matter of ventilation of public and private buildings. Wells for the family water supply are more remote from sink spouts and privies and barnyards. Communities are more critical as to their water supply and the disposal of their waste, and there is more belief in the necessity and efficiency of pure food laws.

That this improvement is general is shown by the reduction of the number of cases of diphtheria and typhoid fever and tuberculosis, — preventable diseases.

More hopeful still is the changed attitude of mind towards diseases. Some cobwebs of superstition have been brushed away and some theologic mists have been dispersed. Probably nowhere to-day, even in the churches which adhere most closely to the ancient formulas, would we hear the lines by Watts, found in all the old hymn books: —

Diseases are Thy servants, Lord;
They come at Thy command.¹

The educational forces by which this general uplift has come are many. The medical profession has devoted itself with the finest public spirit to the enlightenment of the people. The

¹ This hymn was marked "For Sickbed Devotions."

campaign against tuberculosis is a splendid example of the energy, the ingenuity and the self-sacrificing ardor of the doctors. The press has had a powerful influence in this direction. There are few magazines and few newspapers which do not discuss with great frequency, and, on the whole, with intelligence and force, questions which pertain to public and personal health. Discussions in women's clubs and parents' associations of various kinds have helped.

To all these must be added the influence of the public schools. Physiology and hygiene have been included in the curriculum of many schools for many years, and some of the instruction given has been well selected, well arranged and well presented. To this extent the schools are entitled to credit.

But when we have admitted all this, and congratulated ourselves upon the improvement, the disclosures made through medical inspection still confront us and call for action.

The lesson which I have learned is that, in addition to all the other forces making for a better understanding of health conditions, it is the imperative and immediate duty of the schools of all grades to broaden and make more vital their teaching of physiology and hygiene.

Compulsory laws exist in nearly all the States, making instruction in these subjects obligatory, but unfortunately the circumstances under which these laws were enacted left the conservative school people everywhere irritated and cold. The law in its purpose and scope was too narrow, limited as it was to the effects of alcohol and narcotics, and the methods prescribed in most States tended to make the work abortive.

The opportunity now exists, and the results of medical inspection furnish the argument, for a new propaganda in favor of health instruction. It should begin in the lowest grade, because the little children not only need to be taught how to care for themselves but how to care for children still younger. The majority of children of the poorer families, especially of the more recent foreign immigration, have the burden early laid on them of "minding the baby." The following facts are typical:—

In a class of fifty children, thirty have the daily care of younger children.

That such care is inevitable is shown by the fact that, in the families represented by these fifty children, thirty-four have four or more children.

The instruction here needs to be simple, direct and sympathetic, absolutely free from technical anatomy and technical physiology. To instruction should be added insistence upon practice, for the end sought is the early formation of right habits. The results of the right sort of teaching will not be found in answers to questions, but in clean hands, faces, teeth, bodies and clothes, in clear eyes and a responsive brain, in a frame erect and elastic, with all the signs of an abundant supply of good red blood. The teaching will also show itself in the luncheons the children bring and in the way they spend their pennies.

In the higher grades the same ends are to be sought, but the instruction should be less purely dogmatic, and knowledge of the organs of the body and their function should furnish a rational basis for hygienic rules. Anatomy should still be kept subordinate. The hygiene of the home and its relation to personal health should be taught. The personal habits of the pupils must still be an object of the teacher's care.

It ought not to be true in any school, as the reports of a school physician show was true in one set of schools, that the pupils in every grade up to the senior class in the high school had on an average four or more decayed and decaying teeth, and the teachers did not know it.

It ought to be said to all teachers and said with emphasis, "These things ought ye to have done at the risk of leaving some other things undone." We hear much about "essentials" in school education. A sound body kept sound by right living is the essential which underlies and conditions all the rest.

In the high schools now a most anomalous condition exists. Not only is physiology not included in the course of study in many high schools, but when it is included it is not required of college preparatory students. So that these people who are to represent the superlative culture of the times are left in ignorance of the means by which they acquire all their learning. They are expected to translate the maxim of Solon, *γνῶθι σεαυτόν* into "Know thyself," and never to obey it. The instruction

is less intelligent than that of Mr. Squeers: "Bottiney, noun substantive, a knowledge of plants. When he has learned that bottiney means a knowledge of plants, he goes and knows 'em."

No school system can justify itself if it fails to require as a major subject in high schools the study of human physiology. It should be so based on the other sciences and so correlated with them as to appeal to the intelligence of the most advanced students, and its relations to sociology should be shown through public hygiene to be so intimate as to fill it with genuine human interest.

Two hindrances have been found to the successful prosecution of this work in the schools. The text-books have been poor, and many of the teachers uninstructed. Text-books are improving and normal schools are making personal and school hygiene more prominent in their training. Much, however, remains to be done.

To-day the physicians, general and special, are more alive to the needs of the times than are the school people. No permanent results of the present agitation for better sanitary conditions, domestic and public, can be hoped for unless the schools co-operate with all the other agencies. The universal need is for a higher order of intelligence respecting all the things that make for health, and the foundation of such intelligence must be laid in the schools.

APPENDIX J.

COUNTY TRAINING SCHOOLS.

COUNTY TRAINING SCHOOLS.

There are at present 6 county training schools, for the commitment of habitual truants, absentees and school offenders. These schools are located as follows: —

COUNTY TRAINING SCHOOLS.	Location.	Superintendent.
Essex,	Lawrence,	W. Grant Fancher.
Hampden,	Springfield,	Erwin G. Ward.
Middlesex,	North Chelmsford,	M. A. Warren.
Norfolk, Bristol and Plymouth,	Walpole,	James H. Craig.
Suffolk ¹ (Boston Parental),	West Roxbury,	D. P. Dame.
Worcester,	Oakdale,	S. P. Streeter.

¹ Under the law commitments from Chelsea, Revere and Winthrop in Suffolk County must be to the training school for the county of Middlesex.

The counties of Barnstable, Berkshire, Dukes, Franklin, Hampshire and Nantucket are exempted by law from maintaining training schools of their own, but the county commissioners of each of these counties are required to assign an established training school as a place of commitment for habitual truants, absentees and school offenders. The places designated by the several commissioners are as follows: —

COUNTY.	Location of assigned training school.	COUNTY.	Location of assigned training school.
Barnstable,	Walpole.	Franklin,	North Chelmsford.
Berkshire,	Springfield.	Hampshire,	North Chelmsford.
Dukes,	Walpole.	Nantucket,	-

Table showing the number of pupils attending, admitted and discharged during the year.

COUNTY TRAINING SCHOOL.	Number at beginning of year.	Number admitted during the year.	Number discharged during the year.	Number at close of the year.
Essex,	121	54	35	140
Hampden,	39	15	25	29
Middlesex,	180	88	92	176
Norfolk, Bristol and Plymouth, .	62	50	50	62
Suffolk (Boston Parental), . .	251	190	200	241
Worcester,	54	29	33	50
Totals,	707	426	435	698

NAMES OF COUNTY TRUANT SCHOOLS CHANGED TO COUNTY TRAINING SCHOOLS.

Chapter 148, Acts of 1906, provides as follows:—

SECTION 1. The Essex County Truant School at Lawrence shall hereafter be called the Essex County Training School.

SECTION 2. This act shall take effect upon its passage.

Chapter 194, Acts of 1907, provides as follows:—

SECTION 1. The Worcester County Truant School at West Boylston shall hereafter be called the Worcester County Training School.

SECTION 2. This act shall take effect upon its passage.

Chapter 389, Acts of 1906, provides as follows:—

SECTION 1. Habitual truants, habitual absentees and habitual school offenders shall be committed to truant schools, however named, for the instruction and training of children, and now provided for by the several counties, and not to any other institution or place.

SECTION 2. This act shall not apply to the Plummer Farm School of Reform for Boys, at Winter island in Salem.

SECTION 3. So much of any act as is inconsistent herewith is hereby repealed.

Chapter 103, Acts of 1908, provides as follows: —

SECTION 1. The truant school at Springfield in the county of Hampden, the truant school at Chelmsford in the county of Middlesex, and the truant school at Walpole in the county of Norfolk shall hereafter be called, respectively, the Hampden county training school, the Middlesex county training school, and the Norfolk, Bristol and Plymouth union training school; and any school hereafter established pursuant to section one of chapter forty-six of the Revised Laws relative to truants and truant schools shall be called a training school. All laws now or hereafter in force relative to truants and truant schools shall apply to training schools and to commitments thereto.

SECTION 2. This act shall take effect upon its passage.

AN ABSTRACT

OF THE

SCHOOL RETURNS MADE BY THE SCHOOL COMMITTEES
OF THE SEVERAL TOWNS AND CITIES IN
THE COMMONWEALTH

FOR

THE SCHOOL YEAR, 1907-1908.

BARNSTABLE COUNTY.

TOWNS AND CITIES.	SCHOOL CENSUS DATA SEPT. 1, 1907.		Valuation — May 1, 1907.	Population — State Census of 1905.	No. of public schools.	SCHOOL MEMBERSHIP, ATTENDANCE AND GRADUATION DATA FOR THE SCHOOL YEAR.						
	No. of persons in towns between 5 and 15 years of age.	No. of persons in towns between 7 and 14 years of age.				No. of different pupils with- in the year under 5 years of age.	No. of different pupils with- in the year over 15 years of age.	No. of different pupils with- in the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average mem- bership.	No. graduated from gram- mar schools.
Barnstable, .	655	477	\$5,405,290	4,336	24	—	113	523	719	664	.92	60
Bourne, .	262	182	3,334,275	1,786	11	—	43	192	293	255	.87	10
Brewster, .	112	80	507,870	739	4	—	18	71	90	84	.94	7
Chatham, .	234	200	1,103,500	1,634	10	16	70	200	254	233	.92	18
Dennis, .	279	215	1,186,005	1,998	13	—	67	201	308	293	.95	28
Eastham, .	72	53	335,500	519	2	—	1	53	69	62	.90	13
Falmouth, .	490	378	7,918,193	3,241	18	19	55	427	511	455	.89	37
Harwich, .	353	258	1,160,837	2,291	12	1	48	286	341	310	.91	22
Mashpee, .	41	34	191,210	317	2	—	5	31	39	34	.88	4
Orleans, .	169	125	610,196	1,052	4	—	25	125	189	169	.89	14
Provincetown, .	881	689	1,900,300	4,362	22	—	101	683	958	893	.93	43
Sandwich, .	214	155	982,950	1,433	8	—	42	167	228	215	.94	15
Truro, .	155	112	374,460	743	5	—	7	111	136	127	.93	7
Wellfleet, .	134	97	1,033,135	958	5	3	6	90	135	123	.91	12
Yarmouth, .	187	147	2,016,566	1,422	9	2	30	143	190	178	.99	9
Totals, .	4,238	3,202	\$28,080,287	26,831	149	41	631	3,303	4,460	4,095	.92	299

SCHOOL RETURNS.

BERKSHIRE COUNTY.

Adams,	12,486	\$5,921,918	43	2,230	1,786	1,789	17	122	1,290	1,566	1,484	.95	69
Alford,	275	168,255	3	51	36	56	2	-	35	41	34	.82	3
Becket,	890	484,330	7	173	145	178	2	2	132	130	108	.83	10
Cheshire,	1,281	736,843	8	241	170	223	-	4	173	203	192	.94	5
Clarksburg,	1,200	263,192	6	279	204	266	5	4	204	214	182	.85	5
Dalton,	3,122	3,383,042	17	609	490	678	-	42	438	621	583	.94	29
Egremont,	721	461,994	4	87	79	81	-	2	79	79	68	.86	1
Florida,	424	171,895	5	113	77	91	-	2	89	75	65	.87	3
Great Barrington,	6,152	5,426,895	29	938	742	1,181	14	168	724	1,054	953	.91	44
Hancock,	434	288,770	6	81	60	83	1	5	63	71	61	.86	-
Hinsdale,	1,452	584,668	9	261	185	255	3	3	191	217	194	.90	12
Lanesborough,	845	497,236	5	138	100	125	-	4	103	107	88	.82	-
Lee,	3,972	1,972,157	15	727	547	678	32	93	421	588	535	.91	23
Lenox,	3,058	5,148,706	20	584	380	749	18	86	529	612	558	.91	18
Monterey,	444	290,711	4	84	70	87	3	3	70	65	55	.85	-
Mount Washington,	87	83,193	2	12	8	13	-	1	10	9	8	.87	-
New Ashford,	100	51,927	1	9	8	9	-	-	8	9	8	.89	-
New Marlborough,	1,209	675,485	11	189	148	245	2	14	184	176	156	.89	12
North Adams,	22,150	15,028,007	77	4,370	3,051	3,486	187	291	2,063	3,051	2,822	.92	128
Otis,	534	249,452	5	75	60	102	2	-	100	75	62	.82	-
Peru,	268	129,833	4	69	59	53	-	-	44	46	40	.87	-
Pittsfield,	25,001	20,469,000	113	4,593	3,261	4,619	164	439	3,021	4,170	3,867	.93	172
Richmond,	601	349,946	6	83	65	82	-	1	63	65	57	.87	-
Sandisfield,	657	331,345	8	98	67	124	1	3	88	85	72	.85	3
Savoy,	549	183,145	7	95	69	96	-	3	74	79	68	.86	-
Sheffield,	1,782	919,610	13	229	177	304	3	23	198	239	204	.86	11
Stockbridge,	2,022	3,833,989	11	363	305	389	6	31	273	346	317	.92	24
Tyringham,	314	254,725	4	60	48	55	-	1	40	42	38	.90	3
Washington,	339	278,979	5	60	50	68	-	1	56	48	39	.82	4
West Stockbridge,	1,023	388,504	7	202	146	177	-	9	134	149	129	.87	7
Williamstown,	4,425	3,222,299	25	804	673	885	4	91	602	772	723	.94	30
Windsor,	513	284,740	7	90	71	107	1	2	76	87	78	.90	1
Totals,	98,330	\$72,534,791	487	17,997	13,337	17,334	467	1,450	11,575	15,091	13,848	.92	617

BOARD OF EDUCATION.

BARNSTABLE COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.						LENGTH OF SCHOOLING.		HIGH SCHOOLS.								
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.		No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Average number of months public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	No. of pupils admitted to the freshman class.	No. of graduates.	Length of schooling.	Expenditures for high school support.	
	Men.	Women.	In high schools.	In elementary schools.													
Barnstable,	7	23	5	2	21	\$81 45	\$51 00	212	8-16	2	6	130	57	26	{	9-18	\$7,690 00
Bourne,	2	11	3	-	6	82 05	46 34	91-17	8-7	1	3	65	13	12	{	9-18	4,563 00
Brewster,	1	3	1	-	2	85 00	43 33	36	9	1	1	16	7	3	{	9-9	1,080 00
Chatham,	1	10	3	-	4	100 00	34 00	90	9	1	3	70	15	9	{	9	2,160 00
Dennis,	3	10	1	-	7	65 00	45 00	117	9	2	2	67	26	14	{	9	1,708 00
Eastham,	-	2	-	-	2	-	50 00	19-10	9-15	-	-	-	-	-	{	-	-
Falmouth,	3	19	4	-	8	94 00	50 33	159-12	8-17	1	4	70	22	12	{	10	6,605 81
Harwich,	1	12	2	-	4	83 25	38 81	100-12	8-8	1	2	60	22	5	{	9-14	1,572 64
Mashpee,	-	2	-	-	1	-	43 04	17-10	8-15	-	-	-	-	-	{	-	-
Orleans,	1	5	2	2	2	100 00	43 00	36-4	9-1	1	2	44	9	10	{	9-16	1,771 00
Provincetown,	1	24	2	-	15	120 00	38 00	209-10	9-11	1	3	88	30	16	{	10	2,835 00
Sandwich,	1	9	-	1	4	57 15	43 16	67-11	8-9	1	3	37	17	9	{	9-2	2,221 00
Truro,	1	4	-	2	2	48 00	47 20	47-6	9-9	-	-	-	-	-	{	-	-
Wellfleet,	1	4	1	-	4	82 75	37 00	48	9-12	1	1	20	13	1	{	10	1,158 75
Yarmouth,	2	9	1	1	6	85 55	45 72	81	9	1	1	24	7	8	{	8-18	1,548 28
Totals,	25	147	25	8	88	\$82 34	\$44 04	1,333-12	8-19	14	31	691	238	125		9-10	\$34,913 48

BERKSHIRE COUNTY — CONTINUED.

SCHOOL RETURNS.

V

Adams,	4	49	6	-	31	\$129 92	\$50 84	405-8	9-8	1	7	126	51	20	9-18	\$6,556 35
Alford,	-	3	-	1	-	-	33 64	27-15	9-5	-	-	-	-	-	-	-
Becket,	-	7	-	-	6	-	37 55	61-4	8-15	-	-	-	-	-	-	-
Cheshire,	-	8	-	-	3	-	40 50	73-10	9-4	-	-	-	-	-	-	-
Clarksburg,	-	6	-	-	6	-	41 33	54	9	-	-	-	-	-	-	-
Dalton,	1	18	4	-	10	120 00	46 55	157-18	9-5	1	4	100	27	4	9-14	4,266 68
Egremont,	-	4	-	2	1	-	42 42	38	9-10	-	-	-	-	-	-	-
Florida,	1	6	-	-	-	40 00	37 68	38	8	-	-	-	-	-	-	-
Great Barrington,	4	35	6	-	13	126 57	45 31	265-14	9-3	1	7	199	71	24	9-15	8,386 00
Hancock,	-	6	-	-	4	-	33 77	49-2	8-3	-	-	-	-	-	-	-
Hinsdale,	-	9	-	-	3	-	40 69	83-5	9-5	-	-	-	-	-	-	-
Lanesborough,	-	5	-	1	5	-	46 20	42-16	8-11	-	-	-	-	-	-	-
Lee,	1	19	4	1	9	159 15	49 33	140-1	9-10	1	4	89	33	23	9-12	4,550 00
Lenox,	1	23	3	-	18	120 00	48 34	182-16	9-2	1	3	58	8	6	9-8	3,000 00
Monterey,	-	4	-	-	1	-	28 50	34-2	8-10	-	-	-	-	-	-	-
Mt. Washington,	-	4	2	-	2	-	50 00	19-12	9-16	-	-	-	-	-	-	-
New Ashford,	-	1	-	-	-	-	41 78	9	9	-	-	-	-	-	-	-
New Marlborough,	-	11	-	-	1	-	29 09	93-7	8-10	-	-	-	-	-	-	-
North Adams,	7	105	11	-	59	129 22	57 90	732-5	9-10	1	12	319	105	48	9-15	13,420 00
Otis,	1	4	-	-	-	33 60	33 60	40	8	-	-	-	-	-	-	-
Peru,	-	4	-	-	-	-	34 66	34	8-10	-	-	-	-	-	-	-
Pittsfield,	11	136	11	1	39	112 73	53 56	1,070-2	9-14	1	13	353	181	50	9-14	14,806 36
Richmond,	-	6	-	-	1	-	34 66	56-10	9-8	-	-	-	-	-	-	-
Sandisfield,	-	8	-	-	1	-	32 04	67	8-7	-	-	-	-	-	-	-
Savoy,	-	11	-	1	-	-	38 80	56	8	-	-	-	-	-	-	-
Sheffield,	1	13	2	-	1	71 80	33 55	118-19	9-3	1	2	34	6	4	9-8	1,587 06
Stockbridge,	1	13	3	-	9	130 00	58 26	101-4	9-4	1	3	37	19	7	9-4	3,523 81
Tyringham,	1	3	-	-	-	36 00	36 00	35	8-15	-	-	-	-	-	-	-
Washington,	-	5	-	-	-	-	35 32	41-12	8-6	-	-	-	-	-	-	-
West Stockbridge,	2	5	-	-	-	34 00	37 60	65-16	9-8	-	-	-	-	-	-	-
Williamstown,	5	28	4	2	8	95 00	43 00	225-6	9	1	4	91	30	12	9-8	4,445 49
Windsor,	-	7	-	-	2	-	34 00	56	8	-	-	-	-	-	-	-
Totals,	41	566	56	9	233	\$107 90	\$48 42	4,475-14	9-4	10	59	1,406	531	198	9-12	\$64,551 75

BOARD OF EDUCATION.

BARNSTABLE COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.						Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expended for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and transient service.	Superintendent and assistants.	Text-books and school supplies.			
Barnstable,	\$18,462 78	\$3,542 56	\$3,357 58	\$96 00	\$1,500 00	\$1,267 14	\$28,824 11	\$3,305 45	\$25,518 66
Bourne,	5,933 55	1,387 12	2,260 22	113 00	675 00	778 95	11,713 41	601 02	11,112 39
Brewster,	1,986 01	1,020 99	238 72	95 00	229 17	105 41	3,717 30	1,189 80	2,527 50
Chatham,	4,162 91	192 00	936 87	245 00	561 90	414 57	6,822 29	1,442 05	5,380 24
Dennis,	5,621 25	-	1,054 62	110 00	812 50	489 39	8,243 51	1,521 62	6,721 89
Eastham,	1,355 00	1,459 60	240 85	-	115 32	326 92	3,505 38	2,449 71	1,055 67
Falmouth,	12,264 50	3,067 02	3,915 63	144 07	1,360 00	1,294 80	22,192 52	519 25	21,673 27
Harwich,	5,051 24	371 00	930 22	161 38	692 04	579 99	7,950 95	1,671 29	6,279 66
Mashpee,	753 25	-	178 24	35 00	150 00	46 53	1,285 16	700 00	585 16
Orleans,	3,065 59	1,255 05	616 23	20 00	230 70	582 32	5,847 54	2,274 20	3,573 34
Provincetown,	10,565 62	-	1,775 14	243 56	1,105 08	1,438 39	15,215 54	2,215 60	12,999 94
Sandwich,	4,234 68	490 78	1,082 41	20 75	675 00	423 34	7,075 80	2,290 00	4,785 80
Truro,	2,392 40	22 50	247 54	90 50	248 07	258 87	3,316 26	1,681 60	1,634 66
Wellfleet,	2,360 50	702 50	416 43	97 50	247 44	226 45	4,109 76	998 80	3,110 96
Yarmouth,	6,516 56	966 20	792 05	165 00	515 63	414 70	9,497 31	3,023 49	6,473 82
Totals,	\$84,725 84	\$14,477 32	\$18,042 75	\$1,636 76	\$9,117 85	\$8,647 77	\$139,316 84	\$25,883 88	\$113,432 96

SCHOOL RETURNS.

BERKSHIRE COUNTY — CONTINUED.

Adams,	\$29,392 69	\$206 30	\$5,787 01	\$200 00	\$2,450 00	\$2,446 06	\$1,894 46	\$42,376 52	-	\$42,376 52
Alford,	1,008 00	-	80 25	3 00	204 56	103 48	-	1,399 29	\$886 50	512 79
Becket,	3,673 93	294 00	301 60	48 00	381 73	199 55	69 21	4,968 02	2,683 85	2,284 17
Cheshire,	3,508 10	835 00	402 41	62 50	450 00	305 08	244 91	5,808 00	1,772 50	4,035 50
Clarksburg,	2,800 00	-	335 40	45 00	500 00	217 56	55 85	3,953 81	2,319 16	1,634 65
Dalton,	10,771 75	278 00	1,151 43	355 00	1,050 00	1,112 07	823 89	15,542 14	1,003 50	14,538 64
Egremont,	1,926 00	-	229 16	-	272 60	211 67	77 67	2,717 10	1,625 77	1,091 33
Florida,	1,458 50	144 50	87 50	93 85	236 00	280 80	214 70	2,515 85	1,642 00	873 85
Great Barrington,	16,901 68	1,166 55	5,010 05	-	1,608 35	2,343 28	894 44	27,924 35	1,546 50	26,377 85
Hancock,	1,753 00	-	95 09	48 00	500 00	107 43	20 35	2,523 87	1,508 27	1,015 60
Hinsdale,	3,996 15	451 30	729 32	-	517 20	408 55	121 87	6,224 39	2,121 25	4,103 14
Lanesborough,	2,345 58	503 00	486 18	117 00	416 63	206 00	154 06	4,228 45	1,814 34	2,414 11
Lee,	9,920 25	832 21	2,304 97	350 00	720 00	1,109 41	308 90	15,545 74	2,140 39	13,405 35
Lenox,	12,287 86	623 00	2,399 89	30 00	1,500 00	779 80	999 57	18,620 12	200 00	18,420 12
Monterey,	1,116 50	504 75	65 20	61 00	300 00	184 01	26 19	2,257 65	1,442 60	815 05
Mt. Washington,	1,179 25	-	111 75	25 00	150 00	73 78	-	1,539 78	1,038 12	501 66
New Ashford,	376 00	-	52 50	44 00	83 31	54 44	69 02	679 27	611 77	67 50
New Marlborough,	3,753 55	86 75	425 86	142 50	570 00	629 42	163 99	5,772 07	1,975 94	3,796 13
North Adams,	64,947 14	897 00	14,440 43	1,950 00	2,750 00	3,601 26	4,131 15	92,716 98	-	92,716 98
Otis,	1,490 00	231 40	98 50	40 00	300 00	179 34	8 05	2,347 29	775 00	1,572 29
Peru,	1,300 50	225 21	64 75	30 00	335 58	187 27	4 00	2,147 31	1,540 95	606 36
Pittsfield,	78,730 18	272 50	15,638 93	1,411 67	2,300 00	6,912 67	5,521 72	110,787 67	-	110,787 67
Richmond,	2,116 30	159 40	287 73	28 30	477 20	65 23	52 20	3,186 36	1,617 72	1,568 64
Sandisfield,	2,120 00	155 15	208 80	77 20	375 00	120 90	84 03	3,141 08	1,671 84	1,469 24
Savoy,	2,200 00	215 00	87 35	54 00	482 75	166 80	25 10	3,231 00	1,924 89	1,306 11
Sheffield,	4,738 95	435 75	580 36	13 00	780 00	550 53	350 43	7,449 02	2,404 99	5,044 03
Stockbridge,	9,670 50	1,439 08	1,755 37	62 00	500 00	1,083 43	471 81	14,982 19	363 06	14,619 11
Tyringham,	1,329 50	40 00	152 00	30 00	180 00	109 58	8 60	1,849 68	1,207 99	641 69
Washington,	1,655 60	-	91 37	16 00	177 71	66 26	35 43	2,042 37	976 23	1,066 14
West Stockbridge,	3,602 30	754 30	391 60	36 25	545 50	180 81	319 49	5,830 25	2,667 87	3,162 38
Williamstown,	14,158 10	117 00	4,007 45	148 75	1,200 00	867 25	857 29	21,355 84	287 13	21,068 71
Windsor,	2,126 40	203 50	101 60	9 75	362 06	159 35	13 49	2,976 17	1,714 11	1,262 06
Totals,	\$298,354 26	\$11,070 65	\$57,961 81	\$5,531 77	\$22,676 20	\$25,023 07	\$18,021 87	\$438,639 63	\$43,484 26	\$395,155 37

BOARD OF EDUCATION.

BARNSTABLE COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.				Principal	Income.	
Barnstable,	\$7,666 06	-	\$1,353 37	\$9,019 43	-	\$34,538 09	\$10,894 68	\$394 32	\$368 92
Bourne,	2,000 00	\$499 20	259 21	2,758 41	-	13,870 80	-	-	-
Brewster,	-	-	128 00	128 00	-	2,655 50	-	-	128 76
Chatham,	-	-	100 00	100 00	-	5,480 24	-	-	163 53
Dennis,	-	-	740 17	740 17	-	7,462 06	-	-	175 00
Eastham,	-	-	94 33	94 33	-	1,150 00	-	-	-
Falmouth,	-	-	1,563 20	1,563 20	-	23,236 47	-	-	-
Harwich,	-	-	503 82	503 82	-	6,783 48	1,000 00	40 00	208 48
Mashpee,	-	-	24 63	24 63	-	609 79	-	-	-
Orleans,	-	-	260 91	260 91	-	3,834 25	-	-	144 58
Provincetown,	-	-	726 20	726 20	-	13,726 14	-	-	-
Sandwich,	-	783 14	235 17	1,018 31	-	5,804 11	-	-	249 63
Truro,	-	-	197 08	197 08	-	1,831 74	-	-	-
Wellfleet,	-	-	73 19	73 19	-	3,184 15	-	-	-
Yarmouth,	-	-	27 03	27 03	-	6,500 85	15,000 00	885 00	-
Totals,	\$9,666 06	\$1,282 34	\$6,286 31	\$17,234 71.	-	\$130,667 67	\$26,894 68	\$1,319 32	\$1,438 90

SCHOOL RETURNS.

BERKSHIRE COUNTY — CONTINUED.

Adams,	-	\$16,280 37	\$1,385 38	\$17,645 75	-	\$17,645 75	\$60,022 27	-	-	-	-	-
Alford,	-	-	31 80	31 80	-	31 80	544 59	-	-	-	-	-
Becket,	-	404 30	143 56	547 86	-	547 86	2,832 03	-	-	-	-	\$194 07
Cheshire,	-	-	118 23	118 23	-	118 23	4,153 73	-	-	-	-	-
Clarksburg,	\$2,727 40	80 00	270 91	3,078 31	\$500 00	2,578 31	4,212 96	-	-	-	-	-
Dalton,	-	536 06	625 72	1,161 78	-	1,161 78	15,700 42	-	-	-	-	-
Egremont,	-	-	56 12	56 12	-	56 12	1,147 45	-	-	-	-	-
Florida,	-	-	19 67	19 67	-	19 67	893 52	-	-	-	-	51 22
Great Barrington,	11,957 75	151 24	471 02	12,580 01	-	12,580 01	38,957 86	-	-	-	-	387 67
Hancock,	-	-	92 99	92 99	-	92 99	1,108 59	\$200 00	\$12 00	-	-	-
Hinsdale,	-	23 80	-	23 80	-	23 80	4,126 94	-	-	-	-	-
Lanesborough,	-	-	305 86	305 86	-	305 86	2,719 97	1,000 00	24 00	-	-	-
Lee,	-	732 72	-	732 72	-	732 72	14,138 07	-	-	-	-	-
Lenox,	-	1,225 00	727 77	1,952 77	-	1,952 77	20,372 89	-	-	-	-	-
Monterey,	-	-	24 72	24 72	-	24 72	839 77	-	-	-	-	75 95
Mount Washington,	-	-	-	-	-	-	501 66	100 00	6 00	-	-	20 10
New Ashford,	-	-	18 05	18 05	-	18 05	85 55	-	-	-	-	-
New Marlborough,	-	102 33	239 08	341 41	-	341 41	4,137 54	-	-	-	-	177 76
North Adams,	-	800 00	4,067 02	4,867 02	-	4,867 02	97,584 00	-	-	-	-	986 06
Otis,	-	-	13 30	13 30	-	13 30	1,585 59	-	-	-	-	47 69
Peru,	-	-	-	-	-	-	606 36	-	-	-	-	49 86
Pittsfield,	-	-	5,340 68	5,340 68	-	5,340 68	116,128 35	-	-	-	-	250 00
Richmond,	-	-	101 40	101 40	-	101 40	1,670 04	-	-	-	-	60 89
Sandisfield,	-	28 00	11 49	39 49	39 49	-	1,469 24	-	-	-	-	68 43
Savoy,	-	31 00	175 52	206 52	-	206 52	1,512 63	1,290 00	77 40	-	-	75 80
Sheffield,	-	33 63	206 78	240 41	-	240 41	5,284 44	1,297 00	77 82	-	-	184 40
Stockbridge,	-	-	826 22	826 22	-	826 22	15,445 33	1,000 00	69 44	-	-	-
Tyringham,	-	40 00	33 76	73 76	-	73 76	715 45	-	-	-	-	53 83
Washington,	-	-	4 10	4 10	-	4 10	1,070 24	-	-	-	-	54 24
West Stockbridge,	-	-	116 32	116 32	-	116 32	3,278 70	-	-	-	-	-
Williamstown,	-	-	730 14	730 14	-	730 14	21,798 85	-	-	-	-	-
Windsor,	-	-	2 50	2 50	-	2 50	1,264 56	-	-	-	-	64 56
Totals,	\$14,685 15	\$20,468 45	\$16,140 11	\$51,293 71	\$539 49	\$50,754 22	\$445,909 59	\$4,887 00	\$266 66	\$2,782 03		

BOARD OF EDUCATION.

BARNSTABLE COUNTY — CONCLUDED.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1908.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	ACADEMIES AND PRIVATE SCHOOLS.				ESTIMATED AMOUNT OF TUITION PAID IN —		FUNDS WHOSE INCOME MUST BE APPROPRIATED TO ACADEMIES OR PRIVATE SCHOOLS.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Barnstable,	-	\$80 00	-	-	-	-	-	-	-	-
Bourne, .	-	125 00	-	-	-	-	-	-	-	-
Brewster,	\$997 50	-	-	-	-	-	-	-	-	-
Chatham,	1,229 99	-	-	-	-	-	-	-	-	-
Dennis, .	847 49	-	-	-	-	-	-	-	-	-
Eastham,	1,058 00	-	-	-	-	-	-	-	-	-
Falmouth,	-	-	-	-	-	-	-	-	-	-
Harwich,	847 49	-	-	-	-	-	-	-	-	-
Mashpee,	575 00	-	-	-	-	-	-	-	-	-
Orleans, .	1,229 99	-	-	-	-	-	-	-	-	-
Provincetown,	1,079 99	-	-	-	-	-	-	-	-	-
Sandwich,	1,229 99	-	-	-	-	-	-	-	-	-
Truro, .	1,272 49	-	-	-	-	-	-	-	-	-
Wellfleet,	707 99	-	-	-	-	-	-	-	-	-
Yarmouth,	847 49	-	-	-	-	-	-	-	-	-
Totals,	\$11,923 41	\$205 00	-	-	-	-	-	-	-	-

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BERKSHIRE COUNTY — CONCLUDED.

Adams,
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BRISTOL COUNTY.

TOWNS AND CITIES.	SCHOOL CENSUS DATA Sept. 1, 1907.		Valuation — May 1, 1907.	No. of public schools.	SCHOOL MEMBERSHIP, ATTENDANCE AND GRADUATION DATA FOR THE SCHOOL YEAR.							
	No. of persons in towns be- tween 5 and 15 years of age.	No. of persons in towns be- tween 7 and 14 years of age.			No. of different pupils of all ages in the public schools during the school year.	No. of different pupils with- in the year under 5 years of age.	No. of different pupils with- in the year over 15 years of age.	No. of different pupils with- in the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average mem- bership.	No. graduated from gram- mar schools.
Acushnet, .	205	157	\$678,490	7	224	-	5	172	187	172	.92	11
Attleborough, .	2,521	1,755	12,604,775	49	2,465	70	213	1,685	2,109	1,966	.93	91
Berkley, .	172	125	409,711	7	161	1	2	126	145	132	.91	-
Dartmouth, .	759	592	3,325,800	21	666	3	30	502	594	529	.89	36
Dighton, .	387	323	1,018,442	12	359	5	5	259	314	289	.92	11
Easton, .	906	660	5,055,301	27	1,076	52	89	664	984	915	.93	49
Fairhaven, .	895	703	2,949,268	21	975	-	125	694	862	804	.93	23
Fall River, .	21,862	16,032	84,730,844	303	16,282	134	1,006	11,288	13,702	12,616	.92	367
Freetown, .	257	180	842,320	8	278	1	3	182	221	192	.87	-
Mansfield, .	833	592	2,884,019	21	882	1	82	615	806	739	.93	44
New Bedford, .	14,056	9,945	71,279,611	221	11,004	237	564	7,641	9,603	8,890	.92	213
No. Attleborough, .	1,172	839	4,896,803	31	1,354	2	160	968	1,259	1,157	.92	79
Norton, .	324	238	1,081,275	12	346	3	24	234	297	269	.90	8
Raynham, .	270	203	743,946	8	261	-	7	212	232	203	.87	7
Rehoboth, .	356	276	786,151	15	356	3	6	278	284	250	.88	1
Seekonk, .	280	211	1,093,280	10	311	1	2	227	266	230	.86	6
Somerset, .	490	370	1,221,648	13	494	6	30	357	456	424	.93	17

Swansea, .	1,839	1,245,697	12	309	235	329	10	6	234	275	242	.88	10
Taunton, .	30,967	21,907,906	140	5,638	4,010	5,058	-	397	3,559	4,706	4,377	.93	163
Westport, .	2,867	1,680,325	19	507	384	467	-	13	371	413	365	.88	27
Totals, .	269,257	\$220,435,612	957	52,190	37,810	43,348	529	2,769	30,248	37,715	34,761	.92	1,163

DUKES COUNTY.

Chilmark, .	322	\$278,757	2	36	23	36	-	-	23	27	24	.89	-
Edgartown, .	1,138	925,510	5	180	126	189	-	25	124	173	159	.92	13
Gay Head, .	1,175	33,130	1	35	31	45	-	3	32	37	34	.91	-
Gosnold, .	178	366,073	1	16	12	19	-	1	12	15	13	.86	1
Oak Bluffs, .	161	1,781,075	6	273	234	256	-	26	165	197	183	.93	12
Tisbury, .	1,120	1,333,142	6	185	129	227	-	36	151	208	196	.95	11
West Tisbury, .	457	516,798	4	67	51	78	-	11	51	68	60	.88	3
Totals, .	4,551	\$5,234,485	25	792	606	850	-	102	558	725	669	.92	40

BOARD OF EDUCATION.

BRISTOL COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.						LENGTH OF SCHOOLING.		HIGH SCHOOLS.								
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.		No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Average number of months public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	No. of pupils admitted to the freshman class.	No. of graduates.	Length of schooling.	Expenditures for high school support.	
	Men.	Women.	In high schools.	In elementary schools.													
Acushnet,	-	7	1	5	-	-	\$41 43	65-10	9-7	1	9	245	-	-	51	-	\$10,963 65
Attleborough,	4	70	8	2	35	\$123 75	49 65	473-15	9-13	-	-	-	70	-	-	9-15	-
Berkley,	1	6	-	-	1	36 00	35 20	63	9	-	-	-	-	-	-	-	-
Dartmouth,	2	22	2	-	6	62 50	36 74	186-9	8-17	3	3	27	16	9	9	{ 9-11 9-15 9-17 }	1,246 00
Dighton,	-	12	-	-	3	-	38 32	105-18	8-16	-	-	-	-	-	-	-	-
Easton,	2	36	3	-	16	150 00	51 08	255-15	9-9	1	4	101	44	11	11	9-14	6,261 00
Fairhaven,	4	29	9	2	21	200 00	52 92	200-15	9-11	1	11	144	50	8	8	9-14	4,324 00
Fall River,	29	392	17	13	74	129 19	54 37	3,030	10	1	26	758	285	107	10	10	39,785 18
Freetown,	2	6	-	-	10	41 50	42 75	66-18	8-7	-	-	-	-	-	-	-	-
Mansfield,	2	22	4	1	11	114 44	47 00	202-2	9-12	1	4	92	36	15	15	9-8	4,582 07
New Bedford,	15	272	12	6	134	204 63	73 87	1,991-15	9	1	19	461	173	53	53	9-14	34,453 42
No. Attleborough,	2	40	6	1	20	120 00	51 36	284-10	9-3	1	6	134	57	26	26	9-12	6,237 10
Norton,	2	13	2	2	7	76 32	42 30	110-15	9-4	1	3	30	9	9	9	9-17	2,046 00
Raynham,	-	8	-	-	4	-	43 50	70-2	8-15	-	-	-	-	-	-	-	-
Rehoboth,	-	15	-	-	-	-	34 60	132-9	8-17	-	-	-	-	-	-	-	-
Seekonk,	-	10	-	-	2	-	44 06	86	8-12	-	-	-	-	-	-	-	-
Somerset,	1	12	1	-	4	60 00	37 13	113-11	8-15	1	1	36	16	3	3	9-16	1,592 50

Swansea, .	1	12	-	-	5	53 76	35 68	101	8-8	-	-	-	-	-	-	-
Taunton, .	12	138	12	5	74	128 00	55 00	1,316-10	9-4	1	12	405	149	67	9-18	17,097 64
Westport, .	3	16	1	-	3	42 00	32 63	167-2	8-16	1	1	6	6	-	9-12	216 90
Totals,	82	1,138	78	7	430	\$134 78	\$56 43	9,023-16	9-9	14	99	2,439	911	359	9-14	\$128,805 46

DUKES COUNTY — CONTINUED.

Chilmark, .	-	2	-	-	2	-	\$48 33	18	9	-	-	-	-	-	-	-
Edgartown, .	1	6	2	-	-	\$80 00	39 16	44	8-16	1	2	41	13	5	9-15	\$1,336 56
Gay Head, .	1	1	-	-	-	55 00	40 00	8-14	8-14	-	-	-	-	-	-	-
Gosnold, .	-	1	-	-	1	-	55 00	9	9	-	-	-	-	-	-	-
Oak Bluffs, .	1	6	2	-	2	78 88	41 66	52-18	8-16	1	2	23	7	4	8-16	1,307 91
Tisbury, .	1	6	2	-	4	88 40	46 71	53-19	9	1	2	37	10	2	9-16	1,540 78
West Tisbury, .	-	4	1	1	1	-	45 00	34-5	8-11	1	1	11	1	3	8-13	341 50
Totals,	4	26	7	1	10	\$75 57	\$43 72	223-1	8-18	4	7	112	31	14	9-5	\$4,526 75

BRISTOL COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and trunk service.	Superintendent and assistants.	Text-books and school supplies.	School sundries.			
Acushnet, .	\$4,094 50	\$776 50	\$524 25	\$150 00	\$343 75	\$194 17	\$183 91	\$6,267 08	\$2,304 02	\$3,963 08
Attleborough, .	42,875 31	2,420 00	11,158 41	1,447 31	1,875 01	3,378 84	1,779 71	64,934 59	1,314 08	63,620 51
Berkley, .	2,105 60	120 00	362 92	130 50	300 00	101 45	81 21	3,201 68	1,606 75	1,594 93
Dartmouth, .	10,533 70	1,295 00	2,095 97	343 30	750 00	1,051 43	586 27	16,655 67	799 48	15,856 19
Dighton, .	5,962 17	400 50	763 20	-	525 00	321 90	114 29	8,087 06	1,370 68	6,716 38
Easton, .	19,412 10	1,879 58	3,721 36	135 48	1,640 00	2,165 88	286 96	29,241 36	7,585 50	21,655 86
Fairhaven, .	23,371 79	1,483 50	6,518 02	286 35	1,412 50	4,174 83	3,765 87	41,012 86	23,130 64	17,882 22
Fall River, .	265,465 75	1,182 00	63,561 84	6,282 84	3,000 00	20,658 23	4,625 55	364,776 21	8,937 54	355,838 67
Freetown, .	3,728 48	255 50	522 07	606 40	252 53	-	55 32	5,420 30	1,665 53	3,754 77
Mansfield, .	12,570 30	634 96	3,021 92	295 00	720 00	2,164 72	572 17	19,979 07	523 50	19,455 57
New Bedford, .	206,016 76	453 75	38,871 20	4,800 00	5,500 00	18,492 85	13,319 54	287,454 10	2,334 04	285,120 06
No. Attleborough, .	22,263 54	-	5,394 57	36 12	1,858 21	2,307 20	1,480 28	33,339 92	-	33,339 92
Norton, .	6,995 00	614 00	1,700 93	67 75	626 67	444 60	109 27	10,558 22	1,943 54	8,614 68
Raynham, .	4,012 41	596 50	420 64	115 00	287 50	451 08	231 86	6,114 99	2,391 40	3,723 59
Rehoboth, .	5,218 00	-	371 35	142 00	675 00	406 95	212 22	7,025 52	2,181 52	4,844 00
Seekonk, .	4,348 55	8 45	608 46	75 00	600 00	215 54	40 54	5,896 54	2,268 75	3,627 79
Somerset, .	5,322 00	337 10	733 89	140 95	500 00	425 28	84 19	7,543 41	1,364 83	6,178 58

Swansea, . . .	5,714 77	71 30	807 40	31 50	500 00	318 71	305 35	7,749 03	1,992 86	5,756 17
Taunton, . . .	92,428 46	1,366 25	17,674 01	1,129 15	2,324 94	5,178 93	5,453 50	125,555 24	2,609 72	122,945 52
Westport, . . .	6,293 10	500 65	1,171 65	261 60	750 00	554 71	198 80	9,730 51	1,474 63	8,255 88
Totals, . . .	\$748,732 29	\$14,395 54	\$160,004 06	\$16,476 25	\$24,441 11	\$63,007 30	\$33,486 81	\$1,060,543 36	\$67,799 01	\$992,744 35

DUKES COUNTY — CONTINUED.

Chilmark, . . .	\$1,105 37	\$25 50	\$147 50	\$42 00	\$159 96	\$191 73	\$27 00	\$1,699 06	\$1,421 21	\$277 85
Edgartown, . .	2,970 00	397 75	348 22	80 00	469 92	416 01	153 80	4,835 70	1,608 00	3,227 70
Gay Head, . . .	1,079 53	-	65 00	35 00	80 00	93 95	22 00	1,375 48	1,264 02	111 46
Gosnold, . . .	495 00	-	55 50	41 25	-	32 67	17 70	642 12	506 62	75 50
Oak Bluffs, . .	2,927 25	324 00	762 41	113 47	400 00	265 11	144 55	4,936 79	343 10	4,593 69
Tisbury, . . .	3,544 73	264 20	608 70	75 00	400 00	311 42	60 77	5,264 82	1,757 49	3,507 33
West Tisbury, .	1,652 50	54 00	331 89	20 00	240 00	165 26	19 40	2,483 05	1,198 18	1,284 87
Totals, . . .	\$13,774 38	\$1,065 45	\$2,319 22	\$406 72	\$1,749 88	\$1,476 15	\$445 22	\$21,237 02	\$8,158 62	\$13,078 40

BRISTOL COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.				Principal.	Income.	
Acushnet,	-	-	\$190 37	\$190 37	-	\$4,153 43	-	-	\$335 67
Attleborough,	-	\$810 00	6,698 17	7,508 17	-	71,128 68	-	-	1,853 08
Berkley,	-	-	108 44	108 44	-	1,703 37	-	-	-
Dartmouth,	\$1,841 59	11,253 84	1,142 17	14,237 60	-	30,093 79	\$2,000 00	\$80 80	613 07
Dighton,	-	231 35	386 79	618 14	-	7,334 52	-	-	242 52
Easton,	-	-	621 96	621 96	-	22,277 82	103,000 00	7,442 26	-
Fairhaven,	-	600 15	363 74	963 89	\$107 62	18,738 49	7,500 00	305 34	563 27
Fall River,	57,191 83	-	26,520 77	83,712 60	-	439,551 27	50,000 00	2,512 84	-
Freetown,	-	1,396 57	165 78	1,562 35	-	5,317 12	-	-	224 22
Mansfield,	-	-	463 99	463 99	-	19,919 56	-	-	662 65
New Bedford,	35,482 78	4,630 28	15,946 49	56,059 55	-	341,179 61	51,000 00	3,060 00	3,827 69
North Attleborough,	-	575 00	893 22	1,468 22	-	34,808 14	-	-	1,370 00
Norton,	2,201 00	-	698 78	2,899 78	-	11,514 46	-	-	414 30
Raynham,	-	-	241 37	241 37	-	3,964 96	-	-	139 57
Rehoboth,	-	222 45	322 17	544 62	-	5,388 62	-	-	410 87
Seekonk,	-	-	283 51	283 51	-	3,911 30	-	-	354 60
Somerset,	-	-	115 94	115 94	-	6,294 52	-	339 04	192 66

Swansea,	21 85	185 41	207 26	-	207 26	5,963 43	-	-	399 51
Taunton,	7,100 00	6,937 93	14,037 93	-	14,037 93	136,983 45	-	-	-
Westport,	-	177 20	4,528 66	-	4,528 66	12,784 54	-	-	563 72
Totals,	\$26,841 49	\$62,464 20	\$190,374 35	\$107 62	\$190,266 73	\$1,183,011 08	\$213,500 00	\$13,740 28	\$12,167 40

DUKES COUNTY — CONTINUED.

Chilmark,	\$368 18	\$11 80	\$379 98	-	\$379 98	\$657 83	-	-	-
Edgartown,	424 79	154 03	578 82	-	578 82	3,806 52	-	-	\$73 92
Gay Head,	-	23 82	23 82	-	23 82	135 28	-	-	3 46
Goanold,	-	-	-	-	-	75 50	-	-	-
Oak Bluffs,	-	-	-	-	-	4,593 69	-	-	83 06
Tisbury,	-	101 40	101 40	-	101 40	3,608 73	-	-	141 62
West Tisbury,	-	14 68	14 68	-	14 68	1,299 55	-	-	-
Totals,	\$792 97	\$305 73	\$1,098 70	-	\$1,098 70	\$14,177 10	-	-	\$302 06

Swansea..	.	.	.	.	.	847 49	-	-	-	-	-	-	-	-
Taunton,	.	.	.	.	.	-	125 00	1	46	-	843	1,679 44	-	600 87
Westport,	.	.	.	.	.	707 99	10 00	-	-	-	-	-	-	-
Totals,	.	.	.	.	.	\$10,980 41	\$636 63	3	247	32	11,695	\$21,913 44	\$834,000 00	\$31,600 87

DUKES COUNTY — CONCLUDED.

Chilmark,	.	.	.	.	.	\$500 00	-	-	-	-	-	-	-	-
Edgartown,	.	.	.	.	.	858 00	-	-	-	-	-	-	-	-
Gay Head,	.	.	.	.	.	1,197 49	-	-	-	-	-	-	-	-
Gosnold,	.	.	.	.	.	500 00	-	-	-	-	-	-	-	-
Oak Bluffs,	.	.	.	.	.	150 00	-	-	-	-	-	-	-	-
Tisbury, .	.	.	.	.	.	707 99	-	-	-	-	-	-	-	-
West Tisbury, .	.	.	.	.	.	1,429 99	-	-	-	-	-	-	-	-
Totals,	.	.	.	.	.	\$5,343 47	-	-	-	-	-	-	-	-

ESSEX COUNTY.

TOWNS AND CITIES.	Population—State Census of 1905.	Valuation—May 1, 1907.	No. of public schools.	SCHOOL CENSUS DATA SEPT. 1, 1907.		SCHOOL MEMBERSHIP, ATTENDANCE AND GRADUATION DATA FOR THE SCHOOL YEAR.							
				No. of persons in towns be- tween 5 and 15 years of age.	No. of persons in towns be- tween 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils with- in the year under 5 years of age.	No. of different pupils with- in the year over 15 years of age.	No. of different pupils with- in the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average mem- bership.	No. graduated from gram- mar schools.
Amesbury.	8,840	\$5,829,747	26	1,632	1,169	1,029	4	258	667	926	866	.93	94
Andover.	6,632	6,213,825	35	1,301	890	1,287	76	101	877	1,110	1,034	.93	54
Beverly.	15,223	29,189,225	69	2,888	2,002	3,323	-	412	2,003	2,887	2,671	.93	177
Boxford.	665	1,178,161	6	105	79	90	1	-	74	87	75	.91	2
Danvers.	9,083	5,710,560	36	1,359	1,109	1,660	3	235	1,093	1,492	1,419	.95	94
Essex.	1,790	1,077,158	8	283	212	334	-	43	224	303	297	.98	16
Georgetown.	1,840	1,009,410	8	308	249	284	-	17	249	256	228	.89	14
Gloucester.	26,011	22,083,852	113	4,601	3,314	4,974	58	669	3,147	4,678	4,543	.97	202
Groveland.	2,401	1,163,032	13	436	352	448	-	45	297	428	404	.94	32
Hamilton.	1,646	3,445,280	9	308	216	339	2	22	223	292	270	.92	26
Haverhill.	37,830	28,609,398	140	6,948	5,060	6,484	350	831	3,821	5,658	5,230	.92	285
Ipswich.	5,205	4,129,884	21	886	726	876	11	62	614	753	680	.90	28
Lawrence.	70,050	54,246,294	218	13,200	9,643	9,114	4	559	6,912	8,248	7,644	.93	329
Lynn.	77,042	66,979,222	232	12,313	8,876	11,274	-	1,065	7,305	10,129	9,430	.93	446
Lynnfield.	797	746,240	4	118	87	126	2	3	80	98	93	.95	9
Manchester.	2,618	11,831,208	13	398	254	514	32	39	279	442	416	.94	21
Marblehead.	7,209	7,365,680	28	1,140	823	1,360	41	122	850	1,219	1,111	.91	80
Merrimac.	1,884	1,228,324	9	332	261	388	2	55	263	344	321	.93	17
Methuen.	8,676	5,591,033	37	1,892	1,340	1,702	18	110	1,198	1,525	1,408	.92	38
Middleton.	1,068	757,970	4	185	147	166	1	8	121	141	130	.92	8
Nahant.	922	5,662,954	5	174	137	197	-	24	118	160	143	.89	13

Newbury, .	1,480	1,250,505	7	220	164	217	-	3	179	196	172	.87	12
Newburyport, .	14,675	11,270,311	47	2,361	1,879	2,125	-	264	1,332	1,960	1,806	.92	125
North Andover, .	4,614	4,516,386	24	793	566	888	11	66	682	791	767	.97	26
Peabody, .	13,088	9,609,324	47	2,377	1,770	2,083	5	193	1,349	1,890	1,733	.91	70
Rockport, .	4,447	3,080,410	20	814	646	868	2	85	566	822	794	.97	50
Rowley, .	1,388	747,971	8	324	229	259	-	5	194	232	206	.89	5
Salem, .	37,627	32,100,100	122	7,072	4,981	5,433	208	480	3,067	4,794	4,417	.92	254
Salisbury, .	1,622	829,780	8	287	203	256	4	9	194	210	189	.90	10
Saugus, .	6,253	5,687,069	34	1,393	987	1,659	5	153	1,104	1,433	1,310	.91	79
Swampscott, .	5,141	9,317,468	23	792	617	986	8	69	606	887	851	.96	45
Topshfield, .	1,095	1,074,077	5	116	81	149	-	16	101	129	111	.87	10
Wenham, .	924	2,280,425	6	182	135	154	-	4	116	137	124	.93	12
West Newbury, .	1,405	1,059,319	10	234	175	279	1	21	218	259	238	.92	21
Totals, .	381,181	\$346,871,602	1,397	67,772	49,379	61,325	849	6,043	40,123	54,916	51,131	.93	2,704

ESSEX COUNTY — CONTINUED.

TOWNS AND CITIES	TEACHERS AND TEACHERS' WAGES.						LENGTH OF SCHOOLING.		HIGH SCHOOLS.																				
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.		No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Average number of months public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	No. of pupils admitted to the freshman class.	No. of graduates.	Length of schooling.	Expenditures for high school support.													
	Men.	Women.	In high schools.	In elementary schools.																									
Amesbury.	2	32	9	-	11	\$117 50	\$54 61	237-16	9-3	1	9	240	84	35	9-10	\$8,946 80													
Andover.	2	40	6	-	28	137 10	87 16	320-7	9-8	1 ¹	7	104	34	24	9-8	8,317 62													
Beverly.	7	95	20	8	62	132 85	60 13	690	10	1	24	538	150	62	10	28,563 25													
Boxford.	-	8	-	-	5	-	40 80	50-2	8-7	1 ²	1	7	3	1	9-10	1,250 00													
Danvers.	4	42	5	1	19	115 00	49 29	330-17	9-7	1	9	266	77	30	9-5	9,809 11													
Essex.	1	11	4	-	2	90 00	39 25	70-4	8-15	1	4	78	16	4	9-15	2,850 00													
Georgetown.	-	9	-	-	8	-	45 38	72	9	1 ²	3	68	33	10	10	4,277 33													
Gloucester.	6	127	13	1	24	152 00	52 40	1,048	9-6	1	16	470	162	57	9-6	16,050 00													
Groveland.	2	13	3	-	11	70 00	37 77	112	8-12	1	3	67	21	13	9-15	2,574 00													
Hamilton.	1	9	1	-	4	80 00	52 88	84-12	9-8	-	-	-	-	-	-	-													
Haverhill.	11	179	14	-	69	135 66	64 56	1,394-5	9-15	1	23	670	235	109	9-15	28,000 00													
Ipswich.	1	23	4	2	5	150 00	45 00	197-3	9-4	1	4	73	28	7	9-12	4,605 00													
Lawrence.	19	257	21	5	74	151 32	54 43	2,071	9-10	1	25	620	232	89	10	31,939 49													
Lynn.	23	262	30	7	105	166 33	69 71	2,262	9-15	2	37	1,006	404	96	{ 9-15 9-15	68,293 02													
Lynnfield.	-	4	-	1	1	-	46 65	37-1	9-5	-	-	-	-	-	-	-													
Manchester.	2	16	4	1	9	145 00	63 50	122-4	9-8	1	4	60	21	13	9-10	5,750 00													
Marblehead.	1	40	3	-	18	130 00	47 22	260-19	9-6	1	6	180	61	12	9-17	5,935 82													
Merrimac.	2	10	3	-	3	92 50	42 50	84-12	9-8	1	3	68	20	9	9-8	2,998 00													
Methuen.	3	46	4	-	22	115 00	48 94	345-15	9-6	1	6	122	40	21	9-14	6,736 71													
Middleton.	-	4	-	1	2	-	45 50	38	9-10	-	-	-	-	-	-	-													
Nahant.	1	7	3	-	4	151 35	60 47	37	9-5	1	3	45	12	5	9-5	3,318 99													

SCHOOL RETURNS.

Newbury, . . .	7	-	-	-	-	43 43	63-19	9-2	-	-	-	-	-	-	-	-
Newburyport, . .	51	6	11	-	3	128 33	440-14	9-7	1	11	325	135	44	10	10,885 75	-
North Andover, . .	26	3	4	1	15	99 40	240	9-12	1	4	88	36	11	9-14	4,433 00	-
Peabody, . . .	59	5	6	2	35	128 00	434-18	9-12	1	12	305	70	25	9-14	12,867 22	-
Rockport, . . .	22	1	2	-	12	100 00	178-5	8-18	1	3	83	36	12	9-16	3,814 00	-
Rowley, . . .	7	1	-	-	5	48 00	67-15	8-9	-	-	-	-	-	-	-	-
Salem, . . .	141	12	19	6	100	166 67	1,098	9	1	23	608	245	90	9-4	29,272 76	-
Salisbury, . . .	7	1	-	-	2	40 00	70-10	8-16	-	-	-	-	-	-	-	-
Saugus, . . .	40	1	5	-	24	160 00	316-4	9-5	1	5	141	58	22	9-10	6,000 00	-
Swampscott, . . .	27	2	7	-	12	200 00	212-17	9-13	1	7	149	43	12	9-13	7,819 00	-
Topsfield, . . .	7	1	2	1	3	80 00	47-17	9-11	1	2	27	12	5	9-17	1,229 85	-
Wenham, . . .	6	-	-	-	2	-	55-16	9-6	-	-	-	-	-	-	-	-
West Newbury, . .	9	2	1	1	1	79 00	83-1	8-8	1	3	28	14	3	9-12	2,075 50	-
Totals, . . .	1,643	123	204	38	700	\$140 32	13,175-13	9-6	28	257	6,436	2,282	821	9-13	\$318,612 22	-

Punchard Free School.

: Barker Free School.

Perley Free School.

ESSEX COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and transient service.	Superintendent and assistants.	Text-books and school supplies.	School sundries.			
Amesbury,	\$17,482 15	\$418 75	\$3,254 25	300 00	\$1,040 00	\$2,102 00	\$1,201 50	\$25,588 65	\$129 79	\$25,458 86
Andover,	26,091 88	1,484 10	4,235 07	45 00	1,900 00	1,782 58	719 37	36,258 00	3,676 10	32,581 90
Beverly,	71,959 05	2,255 00	14,390 00	1,468 00	2,200 00	7,416 13	2,023 05	101,711 23	-	101,711 23
Boxford,	2,882 00	69 25	349 55	-	300 00	151 36	8 80	3,760 96	1,457 62	2,303 34
Danvers,	25,986 50	800 00	5,290 77	235 10	1,600 00	3,643 57	2,630 15	40,186 09	980 00	39,206 09
Essex,	5,200 00	395 75	1,055 07	70 00	310 00	695 12	84 52	7,810 46	1,720 62	6,089 84
Georgetown,	4,126 00	1,738 00	1,078 97	3 00	600 00	466 22	63 03	8,075 22	2,299 12	5,776 10
Gloucester,	69,325 88	2,000 00	18,238 00	1,360 00	2,300 00	5,591 14	981 24	99,796 26	-	99,796 26
Groveland,	6,688 53	-	1,653 76	140 75	600 00	714 90	272 03	10,069 97	1,714 03	8,355 94
Hamilton,	6,344 68	444 24	1,178 36	175 00	450 00	625 84	309 61	9,527 73	481 50	9,046 23
Haverhill,	128,759 29	1,801 25	20,548 08	1,494 28	2,400 00	12,025 91	5,417 75	172,446 56	959 42	171,487 14
Ipswich,	12,683 22	715 00	1,746 33	250 00	720 00	1,786 51	684 90	18,586 05	2,647 00	15,939 05
Lawrence,	188,305 99	-	35,660 84	4,046 01	3,000 00	15,463 27	5,340 11	251,816 22	-	251,816 22
Lynn,	217,129 63	-	38,219 13	5,748 00	3,000 00	21,323 50	6,228 31	291,648 57	2,046 03	289,602 54
Lynnfield,	3,195 13	200 00	568 43	60 00	197 00	460 50	38 19	4,719 25	1,850 00	2,869 25
Manchester,	13,452 02	1,079 00	3,107 11	-	1,500 00	2,145 86	807 07	22,091 06	-	22,091 06
Marblehead,	22,769 90	143 18	3,185 49	50 00	1,335 00	2,443 28	592 96	30,519 81	-	30,519 81
Merrimac,	5,947 18	500 00	1,266 90	100 00	530 00	645 61	664 54	9,654 23	1,750 68	7,903 55
Methuen,	24,698 96	-	6,535 33	50 40	1,267 50	1,818 53	631 27	35,001 99	468 41	34,533 58
Middleton,	2,594 20	889 00	484 80	115 25	310 00	214 82	202 68	4,810 75	2,264 63	2,546 12
Nahant, A. J.]	5,525 34	-	1,370 75	810 00	200 00	522 53	205 79	8,134 41	-	8,134 41

Newbury, .	3,260 72	633 18	1,178 86	90 05	300 00	284 70	387 83	6,135 34	1,656 23	4,479 11
Newburyport, .	32,326 77	-	6,571 25	666 25	1,600 00	3,613 02	136 94	44,914 23	2,914 23	42,000 00
North Andover, .	16,970 10	-	3,729 72	200 00	900 00	2,200 46	386 31	24,386 59	86 56	24,300 03
Peabody, .	36,408 29	823 45	6,521 38	699 96	1,800 00	2,589 28	983 09	49,828 45	162 00	49,666 45
Rockport, .	10,206 25	-	2,478 54	56 30	1,080 00	1,398 71	3,356 50	18,576 30	-	18,576 30
Rowley, .	3,609 55	161 70	643 03	76 67	300 00	463 17	99 83	5,353 95	2,197 03	3,156 92
Salem, .	109,888 22	380 00	17,030 09	2,800 00	2,500 00	7,924 23	1,864 93	142,387 47	1,124 25	141,263 23
Salisbury, .	3,080 95	494 65	498 50	172 40	300 00	362 87	122 48	5,031 85	1,190 89	3,840 96
Saugus, .	21,710 35	-	7,060 49	100 35	1,040 00	2,887 93	1,183 13	33,982 25	360 00	33,622 25
Swampscott, .	19,686 00	25 00	4,546 26	230 00	1,850 00	2,367 62	1,755 61	30,460 49	-	30,460 49
Topsfield, .	2,792 95	493 75	341 45	40 00	320 50	399 81	135 45	4,523 41	1,151 81	3,371 60
Wenham, .	4,000 00	358 70	533 47	133 75	310 00	318 37	556 45	6,210 74	1,051 13	5,159 61
West Newbury, .	4,604 55	474 98	643 15	127 75	600 00	459 61	439 20	7,349 24	2,339 99	5,009 25
Totals, .	\$1,129,690 23	\$18,782 93	\$215,193 18	\$21,204 27	\$38,660 00	\$107,308 46	\$40,514 71	\$1,571,353 78	\$38,679 07	\$1,532,674 71

ESSEX COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income not unitarily appropriated to the public schools.
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.					Principal	Income.	
Amesbury,	-	\$1,421 35	\$2,071 88	\$1,421 35	-	\$1,421 35	\$26,880 21	-	-	-
Andover,	-	2,703 19	4,313 70	4,775 07	-	4,775 07	37,356 97	\$4,697 82	\$528 20	-
Beverly,	\$93,931 29	-	99 60	98,244 99	-	98,244 99	199,956 22	3,000 00	144 02	-
Boxford,	-	-	815 27	99 60	-	99 60	2,402 94	3,400 00	77 63	-
Danvers,	-	3,460 85	368 62	4,276 12	-	4,276 12	43,482 21	-	-	701 80
Essex,	-	-	207 51	368 62	-	368 62	6,458 46	-	-	144 47
Georgetown,	-	-	13,573 53	207 51	-	207 51	5,983 61	-	-	178 52
Gloucester,	51,402 59	1,521 85	-	66,497 97	-	66,497 97	166,294 23	10,893 17	412 29	940 00
Groveland,	-	-	-	-	-	-	8,355 94	-	-	-
Hamilton,	-	-	418 93	418 93	-	418 93	9,465 16	-	-	334 00
Haverhill,	53,849 93	1,288 00	6,738 29	61,876 22	-	61,876 22	233,363 36	6,020 00	258 00	-
Ipewich,	-	1,920 00	359 77	2,279 77	-	2,279 77	18,218 82	68,000 00	2,577 00	309 65
Lawrence,	-	-	19,228 57	19,228 57	-	19,228 57	271,044 79	-	-	-
Lynn,	33,507 61	31,832 73	14,179 98	79,520 32	-	79,520 32	369,122 86	-	-	-
Lynnfield,	-	134 73	-	134 73	-	134 73	3,003 98	-	-	124 32
Manchester,	-	1,153 35	883 72	2,037 07	-	2,037 07	24,128 13	-	-	-
Marblehead,	25,536 52	658 33	793 18	26,988 03	-	26,988 03	57,507 84	-	-	-
Merrimac,	-	1,226 53	77 04	1,303 57	-	1,303 57	9,207 12	-	-	168 18
Methuen,	-	250 00	2,274 16	2,524 16	-	2,524 16	37,057 74	-	-	990 46
Middleton,	-	649 71	54 17	703 88	-	703 88	3,250 00	-	-	185 71
Nahant,	-	420 55	252 75	673 30	-	673 30	8,807 71	-	-	-

SCHOOL RETURNS.

xxix

Newbury.	.	-	4,206 76	264 36	4,471 12	-	4,471 12	8,950 23	-	-	190 67
Newburyport,	.	-	2,100 00	900 00	3,000 00	-	3,000 00	45,000 00	675 00	-	-
North Andover,	.	-	1,647 00	1,023 70	2,670 70	\$290 00	2,380 70	26,680 73	160 80	-	-
Peabody,	.	18,236 00	-	3,099 96	21,335 96	-	21,335 96	71,002 41	66 00	1,184 78	-
Rockport,	.	-	-	376 63	376 63	-	376 63	18,952 93	-	-	-
Rowley,	.	-	113 50	80 50	194 00	-	194 00	3,350 92	-	-	-
Salem,	.	-	360 00	6,736 99	7,096 99	-	7,096 99	148,360 21	217 00	1,998 25	-
Salisbury,	.	-	-	43 92	43 92	-	43 92	3,884 88	-	-	-
Saugus,	.	-	-	398 66	398 66	-	398 66	34,020 91	-	-	-
Swampscott,	.	-	1,800 00	1,520 71	3,320 71	-	3,320 71	33,781 20	5,000 00	-	-
Topsfield,	.	-	-	230 80	230 80	-	230 80	3,602 40	-	-	143 80
Wenham,	.	-	-	12 35	12 35	-	12 35	5,171 96	-	-	226 99
West Newbury,	.	-	-	129 71	129 71	-	129 71	5,138 96	-	-	-
Totals, .	.	\$276,463 94	\$58,868 43	\$81,528 96	\$416,861 33	\$290 00	\$416,571 33	\$1,949,246 04	\$197,443 17	\$9,285 56	\$8,339 30

SCHOOL RETURNS.

xxxi

[illegible]

FRANKLIN COUNTY.

TOWNS AND CITIES.	SCHOOL CENSUS DATA SEPT. 1, 1907.		Valuation — May 1, 1907.	Population — State Census of 1906.	No. of public schools.	SCHOOL MEMBERSHIP, ATTENDANCE AND GRADUATION DATA FOR THE SCHOOL YEAR.							
	No. of persons in towns be- tween 5 and 15 years of age.	No. of persons in towns be- tween 7 and 14 years of age.				No. of different pupils of all ages in the public schools during the school year.	No. of different pupils with- in the year under 5 years of age.	No. of different pupils with- in the year over 15 years of age.	No. of different pupils with- in the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average mem- bership.	No. graduated from gram- mar schools.
Ashfield,	149	109	\$597,217	959	11	173	2	24	115	155	142	.92	20
Barnardston,	110	94	425,031	769	8	149	-	18	94	132	121	.92	7
Buckland,	261	199	713,348	1,500	9	238	-	2	189	225	214	.95	19
Charlemont,	172	117	419,455	1,002	10	182	2	7	171	155	146	.94	16
Colrain,	370	266	628,465	1,780	15	338	-	7	274	299	271	.90	17
Conway,	194	154	662,984	1,340	12	259	-	9	226	209	194	.93	10
Deerfield,	346	243	1,590,802	2,112	14	311	4	2	237	282	257	.91	16
Erving,	179	143	895,987	1,094	7	209	1	3	150	185	170	.92	-
Gill,	146	107	445,474	1,023	6	151	-	1	117	130	120	.93	-
Greenfield,	1,570	1,102	8,131,585	9,156	42	1,725	18	191	1,100	1,544	1,423	.92	66
Hawley,	92	68	154,953	448	6	87	-	-	87	71	65	.90	6
Heath,	59	43	163,008	356	4	59	-	-	49	52	48	.92	6
Leverett,	133	104	315,377	703	4	128	1	2	97	113	100	.88	2
Leyden,	65	49	175,579	408	5	74	1	3	40	62	53	.87	3
Monroe,	58	44	146,915	269	4	65	1	3	46	53	51	.95	3
Montague,	1,238	926	4,079,977	7,015	32	1,192	9	125	805	1,149	1,095	.95	69
New Salem,	109	81	336,840	672	7	143	-	18	86	113	103	.91	3
Northfield,	240	193	1,238,920	2,017	9	264	1	30	186	222	197	.89	16
Orange,	918	676	3,472,405	5,578	23	1,067	2	148	724	990	928	.94	71
Rowe,	96	72	175,107	533	6	90	-	-	67	82	77	.93	4
Shelburne,	231	165	1,050,347	1,515	10	262	-	36	169	246	231	.94	22
Shutesbury,	49	35	236,905	374	3	52	2	8	87	44	39	.89	-

Sunderland,	910	491,765	4	161	106	145	-	5	116	129	121	.93	7
Warwick,	527	364,880	4	121	95	117	1	9	77	102	90	.88	3
Wendell,	480	237,493	5	102	78	81	-	3	72	76	72	.95	-
Whately,	822	434,841	5	111	80	101	2	-	80	79	70	.90	-
Totals,	43,362	\$27,585,650	265	7,280	5,349	7,662	47	649	5,411	6,899	6,398	.93	386

HAMPDEN COUNTY.

Agawam,	2,795	\$1,684,582	14	548	402	464	5	16	314	425	390	.92	20
Blandford,	746	457,082	6	91	68	97	-	1	77	74	64	.87	4
Brimfield,	894	482,247	7	146	117	134	3	6	90	112	104	.93	14
Chester,	1,366	655,288	11	269	206	336	2	33	201	274	239	.87	16
Chicopee,	20,191	10,966,220	76	3,515	2,826	2,854	90	180	1,909	2,521	2,293	.91	65
E. Longmeadow,	1,327	653,200	10	362	258	351	2	5	273	291	249	.86	5
Granville,	865	417,992	8	168	122	172	-	5	122	136	122	.90	-
Hampden,	561	375,832	6	108	82	107	4	4	74	90	86	.95	5
Holland,	151	96,354	1	17	13	20	1	1	12	13	11	.86	2
Holyoke,	49,934	44,753,780	151	10,460	8,067	7,142	348	683	4,505	6,144	5,609	.91	270
Longmeadow,	964	1,133,570	5	189	157	157	1	6	150	133	121	.91	7
Ludlow,	3,881	3,472,474	23	1,019	847	691	2	34	655	644	589	.91	11
Monson,	4,344	1,767,071	23	656	473	785	3	94	525	684	634	.93	36
Montgomery,	259	150,476	4	35	29	27	1	2	24	27	24	.90	1
Palmer,	7,755	3,963,189	26	1,415	1,032	1,126	6	110	740	1,039	982	.95	54
Russell,	1,053	673,549	8	179	155	161	4	2	124	143	130	.91	-
Southwick,	1,048	651,465	10	175	119	210	2	9	154	143	129	.90	5
Springfield,	73,540	92,378,624	295	12,694	9,068	13,796	757	1,325	8,246	11,516	10,605	.92	481
Tolland,	274	172,709	1	36	24	33	-	3	23	21	17	.80	2
Wales,	645	280,907	4	95	80	120	-	1	101	93	83	.90	5
Westfield,	13,611	8,975,158	57	2,451	1,688	2,433	71	284	1,847	2,142	1,873	.89	132
West Springfield,	8,101	5,971,866	42	1,705	1,212	1,874	73	194	1,174	1,682	1,536	.91	49
Wilbraham,	1,708	1,044,352	12	231	187	248	4	6	166	220	200	.91	9
Totals,	196,013	\$181,177,987	800	36,564	27,232	33,338	1,379	3,004	21,506	28,567	26,090	.91	1,193

FRANKLIN COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.						LENGTH OF SCHOOLING.		HIGH SCHOOLS.								
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.		No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Average number of months public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	No. of pupils admitted to the freshman class.	No. of graduates.	Length of schooling.	Expenditures for high school support.	
	Men.	Women.	In high schools.	In elementary schools.													
Ashfield, .	1	12	3	-	1	\$90 00	\$31 67	97-18	8-18	1	3	29	12	7	7	9-18	\$2,330 93
Barnardston, .	1	7	2	-	5	90 00	40 50	60-14	8-9	1 ¹	2	25	7	-	6	10	1,450 46
Buckland, .	-	9	-	-	2	-	44 60	78-6	8-14	-	-	-	-	-	-	-	-
Charlemont, .	-	12	-	-	2	-	35 28	81-10	8-3	-	-	-	-	-	-	-	-
Colrain, .	-	15	-	-	1	-	32 50	122-2	8-3	-	-	-	-	-	-	-	-
Conway, .	-	13	2	-	4	-	29 92	100-15	8-8	1	2	26	7	-	5	10	1,419 00
Deerfield, .	-	14	-	-	9	-	38 28	122-7	8-15	1 ²	4	63	23	-	13	9-6	4,229 77
Erving, .	-	7	-	-	3	-	40 56	62-2	8-17	-	-	-	-	-	-	-	-
Gill, .	-	6	-	-	4	-	40 00	52-10	8-15	-	-	-	-	-	-	-	-
Greenfield, .	2	49	6	2	36	143 58	47 36	409-10	9-15	1	7	205	66	-	22	9-15	8,501 80
Hawley, .	-	8	-	-	1	-	33 76	48	8	-	-	-	-	-	-	-	-
Heath, .	-	4	-	-	-	-	34 72	32	8	-	-	-	-	-	-	-	-
Leverett, .	-	4	-	-	-	-	40 50	35-15	8-19	-	-	-	-	-	-	-	-
Leyden, .	-	5	-	1	1	-	36 80	42-10	8-10	-	-	-	-	-	-	-	-
Monroe, .	-	4	-	-	1	-	37 00	36	9	-	-	-	-	-	-	-	-
Montague, .	3	38	9	-	22	93 33	50 22	294-8	9-4	2	9	189	44	-	21	{ 9-15 9-15	9,237 69
New Salem, .	1	8	1	1	-	60 00	35 16	64-4	9-2	1	2	28	12	-	4	10	1,134 00
Northfield, .	-	10	1	-	-	-	53 00	81-1	9	1	2	38	16	-	4	9-12	1,633 00
Orange, .	1	27	6	-	15	160 00	47 68	205-14	8-19	1	6	193	74	-	23	9-18	6,422 78
Rowe, .	-	5	-	-	-	-	37 10	40	8	-	-	-	-	-	-	-	-
Shelburne, .	1	13	5	-	4	140 00	47 00	87-15	8-15	1	5	152	48	-	30	9-9	5,772 08
Shutesbury, .	-	3	-	-	-	-	37 67	25-4	8-8	-	-	-	-	-	-	-	-

SCHOOL RETURNS.

XXXV

Sunderland,	-	5	-	-	2	-	42 88	34-4	8-11	-	-	-	-	-	-	-	-
Warwick,	-	4	-	-	-	-	40 00	35-15	8-19	-	-	-	-	-	-	-	-
Wendell,	-	5	-	-	2	-	31 86	40	8	-	-	-	-	-	-	-	-
Whately,	-	5	-	-	5	-	36 80	45	9	-	-	-	-	-	-	-	-
Totals,	10	292	35	4	120	\$110 71	\$40 42	2,335-4	8-16	11	42	948	309	135	9-15	\$42,131 51	

HAMPDEN COUNTY — CONTINUED.

Agawam,	-	14	-	-	7	-	\$41 75	129-10	9-5	-	-	-	-	-	-	-	-
Blandford,	1	7	-	1	2	\$40 00	36 00	41-18	8-7	-	-	-	-	-	-	-	-
Brimfield,	1	10	-	-	1	150 00	43 70	60-19	8-14	1 ²	4	24	15	4	9-11	\$2,550 85	
Chester,	1	11	-	-	5	90 00	39 63	97-6	8-17	1	2	50	24	2	9-19	10,346 93	
Chicopee,	2	84	-	1	54	180 00	48 42	736-17	9-11	1	8	177	65	30	9-15	-	
E. Longmeadow,	-	10	-	-	7	-	44 22	91	9-2	-	-	-	-	-	-	-	
Granville,	-	8	-	-	2	-	36 50	70	8-15	-	-	-	-	-	-	-	
Hampden,	-	6	-	1	1	-	40 66	55-15	9-5	-	-	-	-	-	-	-	
Holland,	-	1	-	-	1	-	48 00	9	9	-	-	-	-	-	-	-	
Holyoke,	21	187	-	8	127	133 16	62 75	1,479-12	9-16	1	30	711	264	90	9-17	44,016 46	
Longmeadow,	-	5	-	-	5	-	51 52	46-3	9-4	-	-	-	-	-	-	-	
Ludlow,	-	25	-	-	18	-	45 00	213-18	9-6	1	2	26	12	-	9-12	2,079 45	
Monson,	4	27	-	-	5	110 00	42 85	211-2	9-3	1 ⁴	7	90	34	18	9-9	3,449 78	
Montgomery,	-	4	-	-	2	-	34 23	33-11	8-7	-	-	-	-	-	-	-	
Palmer,	2	29	-	2	17	87 00	46 00	237-19	9-3	1	5	118	56	17	9-16	4,670 00	
Russell,	-	8	-	1	5	-	39 50	71-18	8-19	-	-	-	-	-	-	-	
Southwick,	-	10	-	-	1	-	39 20	94-9	9-8	-	-	-	-	-	-	-	
Springfield,	35	341	-	25	267	167 42	70 34	2,863-2	9-11	2	58	1,411	464	196	{ 9-11 9-11	90,027 10	
Tolland,	-	2	-	-	1	-	39 48	11-15	8-10	-	-	-	-	-	-	-	
Wales,	2	2	-	-	1	41 00	40 00	34-6	8-11	-	-	-	-	-	-	-	
Westfield,	6	75	-	3	54	167 16	52 00	522	9-9	1	13	318	124	56	9-14	16,500 00	
West Springfield,	5	43	-	1	28	100 58	47 74	388-5	9-4	1	7	202	69	28	9-17	8,201 28	
Wilbraham,	1	11	-	-	8	36 00	41 28	108	9	-	-	-	-	-	-	-	
Totals,	81	920	120	43	619	\$142 39	\$58 48	7,608-5	9-10	11	136	3,127	1,127	441	9-13	\$181,841 85	

¹ Powers Institute. ² Deerfield Academy and Dickinson High School. ³ Hitchcock Free Academy. ⁴ Monson Academy.

FRANKLIN COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent and assistants.	Text-books and school supplies.	School sundries.			
Ashfield, .	\$4,478 80	\$224 20	\$472 81	\$54 02	\$589 29	\$461 48	\$4 50	\$6,285 10	\$2,887 19	\$3,397 91
Barnardston, .	3,222 50	460 00	440 32	75 00	342 16	258 86	93 22	4,892 06	2,373 37	2,518 69
Buckland, .	5,373 00	225 66	649 81	40 00	450 00	185 75	57 56	6,981 78	3,100 00	3,881 78
Charlemont, .	3,536 00	506 00	570 65	65 00	482 82	417 31	632 69	6,210 47	2,660 83	3,549 64
Colrain, .	5,239 31	595 55	355 39	27 00	600 00	457 62	85 01	7,359 88	2,953 12	4,406 76
Conway, .	3,554 95	574 05	757 81	90 00	490 58	297 19	262 74	6,027 32	1,967 87	4,059 45
Deerfield, .	5,296 37	1,198 50	948 64	112 87	656 82	536 43	114 73	8,864 36	1,639 24	7,225 12
Erving, .	3,223 25	462 75	831 03	49 00	552 64	246 78	68 78	5,434 23	2,032 47	3,401 76
Gill, .	2,562 65	347 50	292 05	45 00	325 00	249 56	38 87	3,860 63	2,040 63	1,820 00
Greenfield, .	27,625 00	1,738 30	6,063 69	100 00	1,915 00	1,987 02	2,123 20	41,552 21	1,010 00	40,542 21
Hawley, .	1,807 00	92 55	88 30	38 10	289 71	164 07	68 51	2,548 24	1,839 15	709 09
Heath, .	1,163 00	575 50	49 50	41 25	172 21	167 82	34 60	2,203 88	1,630 79	573 09
Leverett, .	1,825 00	696 60	103 50	58 00	388 15	118 51	84 80	3,274 56	2,055 98	1,218 58
Leyden, .	1,472 75	60 00	70 55	66 25	325 00	46 07	12 82	2,053 44	1,371 39	682 05
Monroe, .	1,430 00	-	91 82	10 00	161 75	224 17	43 20	1,960 94	1,497 74	463 20
Montague, .	20,952 77	2,818 45	5,560 82	99 50	1,800 00	2,443 50	901 83	34,576 87	775 37	33,801 50
New Salem, .	2,941 10	440 75	141 18	-	569 95	262 54	15 00	4,370 52	2,451 35	1,919 17
Northfield, .	4,227 50	852 00	516 28	5 50	650 00	723 54	194 96	6,669 78	1,989 40	4,680 38
Orange, .	14,291 50	2,830 50	3,335 00	50 00	1,658 33	2,012 13	499 36	24,676 82	-	24,676 82
Rowe, .	1,663 75	243 00	142 28	65 00	241 39	77 66	35 82	2,468 90	1,680 82	788 08
Shelburne, .	5,299 25	412 50	742 33	50 00	450 00	211 06	110 42	7,275 56	2,292 88	4,982 68
Shutesbury, .	1,170 75	434 37	80 68	47 00	221 78	52 78	18 66	2,026 02	1,235 62	790 40

Sunderland, .	2,664 50	1,504 34	524 61	48 00	293 56	220 35	279 05	5,534 41	2,347 11	3,187 30
Warwick, .	1,835 00	1,517 45	209 19	16 00	325 00	249 14	71 89	4,223 67	2,013 69	2,209 98
Wendell, .	1,715 25	257 60	94 15	70 00	609 04	147 98	49 61	2,943 63	1,788 67	1,154 96
Whately, .	2,263 25	680 00	209 90	100 00	200 42	192 19	76 21	3,721 97	2,259 49	1,462 48
Totals, .	\$130,834 20	\$19,248 12	\$23,342 29	\$1,422 49	\$14,760 60	\$12,411 51	\$5,978 04	\$207,997 25	\$49,894 17	\$158,103 08

HAMPDEN COUNTY — CONTINUED.

Agawam, .	\$7,915 35	\$630 25	\$1,526 32	\$159 00	\$649 60	\$485 62	\$128 50	\$11,494 64	\$1,835 81	\$9,658 83
Blandford, .	2,813 50	303 50	96 68	25 00	340 89	173 09	24 31	3,776 97	2,045 67	1,731 30
Brimfield, .	1,968 00	621 85	351 12	76 91	450 00	198 20	7 00	3,673 08	1,595 65	2,077 43
Chester, .	4,782 50	247 75	786 80	35 00	730 56	707 90	65 00	7,355 51	3,619 99	3,735 52
Chicopee, .	48,535 50	1,852 00	10,740 67	331 25	2,000 00	3,303 77	1,723 93	68,487 12	208 50	68,278 62
East Longmeadow, .	6,037 64	-	852 81	132 13	472 82	467 76	376 74	8,339 90	3,598 28	4,741 62
Granville, .	2,635 30	331 07	269 79	51 00	450 00	129 55	284 40	4,151 11	1,945 49	2,205 62
Hampden, .	2,276 00	131 00	338 48	99 00	301 50	257 79	42 93	3,446 70	1,964 58	1,482 12
Holland, .	517 03	152 00	35 10	-	70 83	8 44	1 09	784 49	455 23	329 26
Holyoke, .	151,884 32	607 50	28,233 39	4,874 99	3,000 00	13,975 77	11,807 17	214,383 14	-	214,383 14
Longmeadow, .	4,882 00	375 00	706 52	20 00	237 60	287 22	235 50	6,745 84	1,490 87	5,254 97
Ludlow, .	12,647 15	1,644 72	3,840 78	483 75	950 36	1,196 50	2,004 40	22,767 66	1,165 05	21,602 61
Monson, .	12,257 45	245 80	1,643 85	229 55	1,050 00	1,045 12	157 89	16,629 66	2,640 99	13,988 67
Montgomery, .	1,682 50	155 50	76 40	-	193 77	161 18	14 80	2,284 15	1,684 41	599 74
Palmer, .	16,112 20	1,808 70	4,660 18	20 00	1,800 00	1,548 46	927 27	26,876 81	-	26,876 81
Russell, .	3,399 00	214 00	348 28	12 40	389 56	229 83	15 32	4,608 39	1,669 94	2,938 45
Southwick, .	3,677 00	-	363 91	92 00	525 00	286 69	28 44	4,973 04	2,622 91	2,350 13
Springfield, .	318,519 81	824 00	62,185 43	8,471 52	5,833 30	36,458 07	10,851 32	443,143 45	4,009 01	439,134 44
Tolland, .	581 03	627 40	26 75	51 00	150 00	97 38	19 00	1,552 56	700 00	852 56
Wales, .	1,668 81	377 50	257 68	-	233 75	113 91	10 50	2,662 15	1,386 94	1,275 21
Westfield, .	44,615 75	2,330 50	9,203 49	174 72	2,341 69	6,911 28	2,636 20	68,213 63	8,100 40	60,113 23
West Springfield, .	24,633 32	350 00	6,412 25	16 75	1,766 72	1,827 82	534 57	35,541 43	2,652 90	32,888 53
Wilbraham, .	5,702 92	3 45	1,289 28	108 04	566 59	551 20	40 50	8,261 98	1,635 93	6,626 05
Totals, .	\$679,744 08	\$13,833 49	\$134,247 96	\$15,464 01	\$24,504 54	\$70,422 55	\$31,936 78	\$970,153 41	\$47,028 55	\$923,124 86

FRANKLIN COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.					Principal.	Income.	
Ashfield.	-	\$437 00	\$24 26	\$461 26	\$437 00	\$24 26	\$3,422 17	\$21,423 75	\$878 44	\$65 38
Barnardston.	-	-	264 25	264 25	-	264 25	2,782 94	14,218 67	565 90	88 62
Buckland.	-	-	310 27	310 27	-	310 27	4,192 05	-	-	99 53
Charlemont.	-	-	39 02	39 02	-	39 02	3,588 66	3,600 00	163 90	83 93
Colrain.	-	-	247 81	247 81	-	247 81	4,654 57	-	175 00	113 30
Conway.	-	167 27	183 33	350 60	-	350 60	4,410 05	1,000 00	41 23	73 89
Deerfield.	-	89 13	461 43	550 56	-	550 56	7,775 68	-	-	127 68
Erving.	-	652 86	126 10	778 96	-	778 96	4,180 72	-	-	86 68
Gill.	-	-	103 08	103 08	103 08	-	1,820 00	3,500 00	175 00	-
Greenfield.	-	6,000 00	1,354 90	7,354 90	-	7,354 90	47,897 11	-	-	-
Hawley.	-	-	168 16	168 16	-	168 16	877 25	328 50	22 28	49 43
Heath.	-	-	126 91	126 91	-	126 91	700 00	-	-	39 94
Leverett.	-	-	29 55	29 55	-	29 55	1,248 13	-	-	-
Leyden.	-	145 70	25	145 95	145 95	-	682 05	-	175 00	-
Monroe.	-	-	135 82	135 82	-	135 82	599 02	-	-	-
Montague.	-	345 19	853 31	1,198 50	-	1,198 50	35,000 00	-	-	58 00
New Salem.	-	-	33 25	33 25	-	33 25	1,952 42	-	-	268 80
Northfield.	-	1,130 56	90 87	1,221 43	-	1,221 43	5,901 81	-	-	-
Orange.	\$11,325 84	545 68	594 30	12,465 82	-	12,465 82	37,142 64	-	-	54 45
Rowe.	-	-	-	-	-	-	788 08	-	-	81 37
Shelburne.	-	-	652 79	652 79	-	652 79	5,635 47	14,000 00	500 00	47 90
Shutesbury.	-	20 45	4 64	25 09	9 95	15 14	805 54	-	-	-

Sunderland,.	.	-	21 50	45 74	67 24	-	67 24	3,254 54	-	-	-
Warwick, .	.	-	-	-	-	-	-	2,209 98	500 00	20 20	-
Wendell, .	.	-	23 60	6 05	29 65	-	29 65	1,184 61	800 00	135 40	-
Whately, .	.	-	-	6 50	6 50	-	6 50	1,468 98	-	-	-
Totals, .	.	\$11,325 84	\$9,578 94	\$5,862 59	\$26,767 37	\$695 98	\$26,071 39	\$184,174 47	\$59,370 92	\$2,852 35	\$1,338 90

HAMPDEN COUNTY — CONTINUED.

Agawam, .	.	-	\$319 81	\$160 33	\$480 14	-	\$480 14	\$10,138 97	\$4,897 53	\$217 34	-	\$132 31
Blandford, .	.	-	-	18 81	18 81	-	18 81	1,750 11	-	-	-	-
Brimfield, .	.	-	-	284 26	284 26	-	284 26	2,361 69	408 12	-	-	159 72
Chester, .	.	-	118 20	457 88	576 08	-	576 08	4,311 60	-	-	-	-
Chicopee, .	.	-	7,530 07	3,395 04	10,975 11	-	10,975 11	79,253 73	-	-	-	-
East Longmeadow, .	.	-	90 00	325 38	415 38	-	415 38	5,157 00	731 00	27 65	-	164 47
Granville, .	.	-	-	46 69	46 69	-	46 69	2,252 31	-	-	-	-
Hampden, .	.	-	176 75	-	176 75	-	176 75	1,658 87	-	-	-	115 15
Holland, .	.	-	-	-	-	-	-	329 26	222 22	8 92	-	33 43
Holyoke, .	.	\$3,406 22	12,404 59	3,954 10	19,764 91	-	19,764 91	234,148 05	-	-	-	2,689 44
Longmeadow, .	.	-	64 62	20 43	85 05	-	85 05	5,340 02	-	-	-	20 00
Ludlow, .	.	4,195 76	5,060 47	1,281 09	10,537 32	-	10,537 32	32,139 93	-	-	-	214 63
Monson, .	.	-	120 00	637 88	757 88	-	757 88	14,746 55	-	-	-	545 61
Montgomery, .	.	-	-	35 09	35 09	-	35 09	634 83	-	-	-	22 14
Palmer, .	.	30,450 00	-	339 56	30,789 56	-	30,789 56	57,666 37	-	-	-	671 66
Russell, .	.	-	-	36 99	36 99	-	36 99	2,975 44	-	-	-	48 49
Southwick, .	.	-	192 72	94 21	286 93	-	286 93	2,637 06	-	-	-	168 58
Springfield, .	.	132,560 87	10,572 87	16,618 30	159,752 04	-	159,752 04	598,886 48	15,618 03	767 42	-	-
Tolland, .	.	-	7 00	-	7 00	-	7 00	859 56	-	-	-	52 71
Wales, .	.	-	-	-	-	-	-	1,275 21	-	-	-	-
Westfield, .	.	-	-	3,045 08	3,045 08	-	3,045 08	63,158 31	-	-	-	-
West Springfield, .	.	-	26,392 98	1,937 90	28,330 88	-	28,330 88	61,219 41	14,340 00	789 90	-	10 00
Wilbraham, .	.	50 00	-	222 09	272 09	-	272 09	6,898 14	1,308 40	78 50	-	229 59
Totals, .	.	\$170,662 85	\$63,100 08	\$32,911 11	\$266,674 04	-	\$266,674 04	\$1,189,798 90	\$37,525 30	\$1,889 73	-	\$5,277 93

BOARD OF EDUCATION.

FRANKLIN COUNTY — CONCLUDED.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1908.	Amount of voluntary contributions expended on the public schools but not included in expenditures	SCHOOLS.	No. of different private schools within attendance	1908 WHOSE INCOME MUST BE APPROPRIATED TO ACADEMICS OR PRIVATE SCHOOLS.	
					Principal	Income
Ashfield.	\$853 00	\$86				
Barnardston.	1,429 99					
Buckland.	997 50	727				
Charlemont.	1,133 00					
Colrain.	1,229 99					
Conway.	997 49					
Deerfield.	1,079 99				2,654 91	\$2,283 71
Erving.	997 49					
Gill.	1,197 49				6,309 00	13,810 00
Greenfield.						
Hawley.	1,133 00					
Heath.	1,429 99					
Leverett.	1,057 99					
Leyden.	1,040 00					
Monroe.	1,040 00					
Montague.						
New Salem.	1,272 49				2,500 00	125 00
Northfield.	707 99				5,708 53	17,515 21
Orange.						
Rowe.	575 00					
Shelburne.	847 49					
Shutesbury.	904 99					

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HAMPDEN COUNTY — CONCLUDED.

1 United with high school.

BOARD OF EDUCATION.

HAMPSHIRE COUNTY.

TOWNS AND CITIES.	Population — State Census of 1906.		School Census Data Sept. 1, 1907.								School Membership, Attendance and Graduation Data for the School Year.				
	No. of persons in towns between 5 and 16 years of age.	No. of persons in towns between 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils with- in the year under 5 years of age.	No. of different pupils with- in the year over 15 years of age.	No. of different pupils with- in the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average membership.	No. graduated from grammar schools.					
Amherst.	759	525	918	2	175	570	838	772	.92	46					
Belchertown.	390	319	455	2	51	317	386	351	.91	18					
Chesterfield.	86	61	99	-	10	70	73	65	.90	5					
Cummington.	131	101	138	-	7	106	133	124	.94	9					
Easthampton.	1,247	905	1,204	-	47	880	1,117	1,024	.92	38					
Enfield.	171	147	160	2	1	147	141	129	.91	11					
Goshen.	62	45	65	-	1	52	55	51	.90	7					
Granby.	118	87	133	1	15	91	116	103	.88	7					
Greenwich.	88	66	69	-	-	62	53	49	.92	3					
Hadley.	319	249	247	-	33	232	316	293	.93	14					
Hartfield.	264	181	250	-	4	160	242	217	.90	17					
Huntington.	267	214	347	1	42	237	320	292	.91	34					
Middlefield.	90	65	131	-	-	65	95	86	.90	2					
Northampton.	3,071	2,432	3,097	167	303	1,962	2,765	2,641	.95	103					
Pelham.	96	69	99	-	2	75	74	67	.90	1					
Plainfield.	64	45	64	-	4	48	53	49	.92	4					
Prescott.	59	41	48	1	-	39	46	43	.93	2					

SCHOOL RETURNS.

Southampton,	927	495,766	8	157	133	163	1	-	125	142	124	.87	5
South Hadley,	5,054	2,617,023	25	936	669	955	4	80	638	891	817	.92	69
Ware, .	8,594	4,531,080	29	1,537	1,242	1,156	12	113	778	995	937	.94	45
Westhampton,	466	225,942	5	114	81	108	-	2	80	89	81	.91	4
Williamsburg,	1,943	947,719	14	397	309	441	2	23	321	382	354	.92	10
Worthington,	614	307,406	6	104	83	120	-	5	99	91	82	.90	2
Totals, .	62,227	\$38,065,747	317	10,529	8,069	10,647	195	918	7,134	9,414	8,751	.93	456

HAMPSHIRE COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.						LENGTH OF SCHOOLING.		HIGH SCHOOLS.							
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.		No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Average number of months public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	No. of pupils admitted to the freshman class.	No. of graduates.	Length of schooling.	Expenditures for high school support.
	Men.	Women.	In high schools.	In elementary schools.												
Amherst, .	3	22	6	2	9	\$115 00	\$45 25	160-6	8-18	1	6	191	44	27	9-12	\$6,400 00
Belchertown, .	1	19	2	-	2	73 55	33 32	153-1	8-16	1	2	83	18	13	9	1,781 92
Chesterfield, .	1	5	-	1	-	38 42	37 80	52-5	8-14	-	-	-	-	-	-	-
Cummington, .	1	7	-	-	1	40 00	36 40	66-15	8-7	-	-	-	-	-	-	-
Easthampton, .	1	32	4	5	11	120 00	43 74	264-10	8-16	1	4	58	24	9	9-16	3,225 00
Enfield, .	-	7	-	-	1	-	39 79	63	9	-	-	-	-	-	-	-
Goshen, .	-	4	-	-	1	-	39 93	32	8	-	-	-	-	-	-	-
Granby, .	1	5	2	-	4	80 00	36 00	45-10	9-2	1	2	26	7	7	9-16	1,469 72
Greenwich, .	-	2	-	-	1	-	44 00	17-14	8-17	-	-	-	-	-	-	-
Hadley, .	-	14	3	-	2	-	41 00	96-9	8-15	1	3	36	19	8	9-14	2,400 00
Hatfield, .	-	9	-	-	5	-	39 10	79-9	8-16	-	-	-	-	-	-	-
Huntington, .	1	12	3	-	7	75 00	37 80	90-2	9	1	4	81	29	10	9-18	2,660 98
Middlefield, .	-	6	-	-	2	-	36 66	50-2	8-7	-	-	-	-	-	-	-
Northampton, .	6	95	13	2	44	128 00	48 16	784	9-13	1	14	343	135	35	9-14	15,422 51
Pelham, .	-	4	-	-	2	-	38 00	35-11	8-17	-	-	-	-	-	-	-
Plainfield, .	-	5	-	-	1	-	35 30	40	8	-	-	-	-	-	-	-
Prescott, .	1	5	-	-	-	32 00	31 20	43-4	8-13	-	-	-	-	-	-	-

Southampton,	.	-	8	-	2	3	-	34	19	71	8-14	-	-	-	-	-	-	-	-
South Hadley,	.	1	30	4	1	19	120	43	15	227-6	9-2	1	5	125	33	16	9-15	4,360	38
Ware,	.	2	32	5	1	12	129	48	40	266-11	9-2	1	6	118	40	23	9-5	6,393	61
Westhampton,	.	-	5	-	1	1	-	34	40	42	8-8	-	-	-	-	-	-	-	-
Williamsburg,	.	2	13	2	1	4	54	33	34	128	9-2	2	3	51	19	5	{ 10 10 }	1,690	05
Worthington,	.	1	6	-	-	3	36	00	30	55-10	9-5	-	-	-	-	-	-	-	-
Totals,	.	22	347	44	16	135	\$95	23	\$42	2,864-5	9-1	11	49	1,112	368	153	9-14	\$45,804	17

1 Hopkins Academy.

BOARD OF EDUCATION.

HAMPSHIRE COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and truant service.	Superintendent and assistants.	Text-books and school supplies.	School sundries.			
Amherst, .	\$12,627 90	\$871 66	\$2,280 85	\$165 00	\$1,500 00	\$1,326 10	\$844 67	\$19,616 18	\$2,362 06	\$17,254 12
Belchertown, .	5,996 67	106 40	456 47	194 63	1,080 00	272 14	91 63	8,197 94	2,847 39	5,350 55
Chesterfield, .	2,083 50	440 60	99 42	34 50	375 00	122 54	49 84	3,205 40	1,732 40	1,473 00
Cummington, .	2,997 96	117 00	206 63	40 00	407 16	105 23	34 12	3,908 12	2,463 55	1,444 57
Easthampton, .	15,849 63	743 75	3,426 08	128 10	1,323 30	1,132 26	484 39	23,087 51	888 65	22,198 86
Enfield, .	2,300 48	708 70	500 86	84 38	420 00	359 70	10 00	4,384 12	2,302 69	2,081 43
Goshen, .	1,278 00	25 00	72 00	13 00	214 30	205 63	108 86	1,916 79	1,446 06	470 73
Granby, .	2,678 00	949 25	369 17	85 00	437 50	321 95	141 68	4,962 55	2,602 34	2,360 21
Greenwich, .	1,233 20	538 00	99 50	40 00	157 89	30 41	25 08	2,124 08	1,185 55	938 53
Hadley, .	5,710 00	534 75	1,215 10	2 00	627 44	590 12	191 43	8,870 84	3,723 49	5,147 35
Hatfield, .	4,399 26	38 00	1,221 99	67 00	490 40	466 26	21 00	6,703 91	1,319 50	5,384 41
Huntington, .	5,338 71	320 85	1,031 64	46 88	550 08	585 14	158 05	8,031 35	2,987 39	5,043 96
Middlefield, .	1,911 00	155 70	117 25	-	308 12	82 63	394 22	2,968 92	2,228 70	740 22
Northampton, .	55,672 01	719 75	13,563 81	815 21	2,000 00	4,944 28	1,793 11	79,508 17	3,009 46	76,498 71
Pelham, .	1,689 00	88 00	79 50	-	300 00	63 58	46 46	2,266 54	2,086 49	180 05
Plainfield, .	1,412 00	-	66 85	26 40	285 69	190 35	28 10	2,009 39	1,271 51	737 88
Prescott, .	1,508 10	300 75	83 70	28 00	369 15	133 75	54 14	2,477 59	1,839 82	637 77

Southampton,	3,023 10	-	466 91	75 00	135 43	187 50	4 68	3,892 62	1,727 19	2,165 43
South Hadley,	13,095 47	1,150 00	3,540 04	100 00	1,312 50	1,183 32	1,043 61	21,424 94	1,094 00	20,330 94
Ware,	19,321 10	1,035 20	5,701 82	-	2,000 00	1,845 30	1,687 59	31,591 01	365 68	31,225 33
Westhampton,	2,637 08	-	115 25	41 00	105 53	189 30	24 10	3,112 26	1,912 26	1,200 00
Williamsburg,	5,558 40	310 40	969 61	225 00	750 00	566 66	180 20	8,560 27	3,305 59	5,254 68
Worthington,	2,115 00	18 00	185 14	75 00	375 00	322 00	38 06	3,128 20	1,955 49	1,172 71
Totals,	\$170,435 59	\$9,171 76	\$35,869 59	\$2,286 10	\$15,524 49	\$15,226 15	\$7,455 02	\$255,968 70	\$46,657 26	\$209,311 44

HAMPSHIRE COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.					Principal	Income.	
Amherst,	-	-	\$1,075 25	\$1,075 25	-	\$1,075 25	\$18,329 37	-	-	\$523 25
Belchertown,	-	-	259 38	259 38	-	259 38	5,609 93	\$6,000 00	\$242 40	-
Chesterfield,	-	-	81 60	81 60	-	81 60	1,554 80	500 00	22 75	-
Cummington,	-	-	122 67	122 67	\$97 08	25 59	1,470 16	-	-	97 08
Easthampton,	-	\$72 00	1,308 92	1,380 92	-	1,380 92	23,579 78	-	-	314 14
Enfield,	-	-	59 37	59 37	-	59 37	2,140 80	-	-	-
Goshen,	-	-	22 44	22 44	-	22 44	493 17	-	-	-
Granby,	-	-	165 92	165 92	-	165 92	2,546 13	-	-	-
Greenwich,	-	-	11 47	11 47	-	11 47	950 00	500 00	30 00	-
Hadley,	-	-	655 12	655 12	-	655 12	5,802 47	-	-	-
Hatfield,	\$1,999 20	371 94	1,055 49	3,426 63	-	3,426 63	8,811 04	-	-	153 84
Huntington,	12,077 59	-	129 64	12,207 23	-	12,207 23	17,251 19	-	-	-
Middlefield,	-	-	94 72	94 72	-	94 72	834 94	-	-	-
Northampton,	-	2,859 23	2,802 14	5,661 37	-	5,661 37	82,160 08	3,000 00	113 54	1,117 38
Pelham,	-	-	10 00	10 00	-	10 00	190 05	-	-	18 66
Plainfield,	-	-	11 80	11 80	-	11 80	749 68	-	-	-
Prescott,	-	-	30 37	30 37	-	30 37	668 14	-	-	66 22

SCHOOL RETURNS.

Southampton,	.	.	143 87	-	143 87	143 87	2,309 30	-	-	-	140 90
South Hadley,	.	.	2,983 50	-	809 96	3,773 46	24,104 40	-	-	-	386 85
Ware,	.	.	883 04	-	1,108 59	1,991 63	83,216 96	-	-	-	-
Westhampton,	.	.	-	-	67 95	-	1,200 00	-	-	-	-
Williamsburg,	.	.	-	-	439 49	439 49	5,694 17	14,104 00	714 80	-	175 25
Worthington,	.	.	-	-	82 73	82 73	1,255 44	-	-	-	194 01
Totals, .	.	.	\$14,076 79	\$7,293 58	\$10,405 02	\$31,775 39	\$165 03	\$31,610 36	\$24,104 00	\$1,123 49	\$3,187 58

BOARD OF EDUCATION.

MIDDLESEX COUNTY.

TOWNS AND CITIES.	SCHOOL CENSUS DATA SEPT. 1, 1907.		Valuation — May 1, 1907.	No. of public schools.	SCHOOL MEMBERSHIP, ATTENDANCE AND GRADUATION DATA FOR THE SCHOOL YEAR.							
	No. of persons in towns be- tween 5 and 15 years of age.	No. of persons in towns be- tween 7 and 14 years of age.			No. of different pupils of all ages in the public schools during the school year.	No. of different pupils with- in the year under 5 years of age.	No. of different pupils with- in the year over 15 years of age.	No. of different pupils with- in the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average mem- bership.	No. graduated from gram- mar schools.
Acton, .	340	249	\$1,798,545	11	363	-	30	353	331	292	.88	26
Arlington, .	1,859	1,305	10,887,550	44	1,969	-	216	1,251	1,778	1,683	.95	98
Ashby, .	125	90	506,727	4	135	-	21	85	123	112	.91	9
Ashland, .	322	272	1,094,328	10	362	7	45	241	338	308	.91	25
Ayer, .	406	312	2,008,215	10	508	1	73	314	481	442	.92	36
Bedford, .	185	125	1,285,115	4	145	-	3	112	138	126	.91	12
Belmont, .	845	677	5,994,920	20	850	-	87	576	779	722	.93	20
Billerica, .	519	351	2,245,908	16	575	4	42	432	509	456	.89	24
Boxborough, .	54	43	252,115	4	54	1	1	45	49	45	.93	2
Burlington, .	69	49	609,834	3	75	1	2	51	61	58	.95	4
Cambridge, .	16,110	11,500	107,009,290	323	16,248	910	1,534	10,093	14,957	13,878	.94	735
Carlisle, .	89	65	416,193	3	92	-	1	66	85	74	.87	3
Chelmsford, .	800	584	3,298,410	26	864	8	64	589	775	696	.90	28
Concord, .	900	635	6,126,188	22	1,152	-	223	610	998	928	.93	51
Dracut, .	538	411	2,191,015	16	560	2	8	420	497	458	.92	17
Dunstable, .	78	65	295,100	3	83	-	3	66	75	68	.92	1
Everett, .	5,846	4,149	24,050,350	141	6,721	11	638	4,492	6,153	5,818	.95	330
Frammingham, .	1,931	1,517	9,779,660	53	2,191	18	232	1,437	2,059	1,894	.92	132
Groton, .	315	229	2,998,802	10	377	-	66	256	344	313	.91	26
Holliston, .	448	342	1,566,329	13	540	-	66	368	485	447	.92	28

SCHOOL RETURNS.

Hopkinton, .	2,585	1,558,171	13	431	334	471	1	41	313	427	399	.93	30
Hudson, .	6,217	3,413,881	21	1,102	758	1,133	6	95	724	1,070	999	.93	76
Lexington, .	4,530	6,209,800	21	805	595	877	7	114	573	823	759	.92	49
Lincoln, .	1,122	2,869,832	5	137	93	117	-	2	90	103	95	.93	9
Littleton, .	1,219	1,016,858	7	218	152	237	-	26	157	201	194	.96	21
Lowell,. .	94,889	75,445,738	274	14,498	10,169	13,423	693	1,007	8,605	11,375	10,424	.92	478
Malden, .	38,037	32,759,650	163	7,744	5,137	7,314	6	845	4,861	6,695	6,173	.92	352
Marlborough, .	14,073	9,889,313	64	2,923	2,031	2,580	42	225	1,683	2,368	2,287	.96	101
Maynard, .	5,811	3,732,355	20	723	584	879	1	54	625	793	736	.93	44
Medford, .	19,686	22,340,450	90	3,914	2,797	4,515	123	486	2,948	3,988	3,670	.92	22
Melrose, .	14,295	15,734,410	67	2,597	2,011	3,224	46	501	2,007	2,974	2,799	.94	212
Natick, .	9,609	6,850,400	40	1,629	1,168	1,829	-	1,558	1,186	1,750	1,641	.94	119
Newton, .	36,827	67,523,685	162	6,597	4,717	6,942	310	1,021	4,098	6,223	5,757	.93	317
North Reading, .	903	673,115	4	166	151	136	-	1	104	130	118	.91	12
Pepperell, .	3,268	2,234,747	18	585	512	766	7	69	494	643	576	.90	33
Reading, .	5,682	4,991,526	22	997	723	1,213	6	185	724	1,125	1,025	.91	66
Sherborn, .	1,379	1,345,286	7	225	169	225	-	3	178	193	179	.93	16
Shirley, .	1,692	1,046,727	8	304	253	332	8	15	230	274	253	.92	14
Somerville, .	69,272	61,527,750	241	12,298	8,668	13,970	272	1,735	8,962	11,793	11,068	.93	72
Stoneham, .	6,332	4,956,916	26	1,083	743	1,232	2	152	791	1,101	1,032	.94	83
Stow, . .	1,027	881,126	6	201	130	217	-	21	144	195	180	.92	8
Sudbury, .	1,159	1,301,160	7	188	129	198	6	22	124	183	168	.92	10
Tewksbury, .	4,415	1,101,926	6	222	184	192	-	3	157	162	146	.91	9
Townsend, .	1,772	1,142,378	9	264	183	295	-	46	168	262	243	.93	12
Tyngsborough, .	768	514,094	5	140	104	127	2	1	100	111	101	.91	4
Wakefield, .	10,268	8,367,559	50	1,889	1,372	2,382	23	273	1,478	2,091	1,985	.95	130
Waltham, .	26,282	24,956,188	77	3,967	2,761	3,375	103	423	2,039	3,172	2,951	.93	180
Watertown, .	11,258	12,695,723	37	1,927	1,568	1,728	23	209	1,022	1,591	1,467	.92	97
Wayland, .	2,200	1,964,134	11	366	301	399	4	46	254	368	343	.93	27
Westford, .	2,413	1,675,310	15	403	332	469	-	40	320	394	345	.88	15
Weston, .	2,091	5,914,417	7	297	197	308	-	48	192	281	264	.93	22
Wilmington, .	1,670	1,272,427	11	355	297	402	-	57	272	370	345	.94	35
Winchester, .	8,242	11,010,650	36	1,681	1,230	1,775	62	229	1,078	1,617	1,486	.92	76
Woburn, .	14,402	10,904,518	59	3,463	2,160	2,967	37	271	1,954	2,738	2,559	.93	138
Totals, . .	608,499	\$594,236,814	2,345	106,138	75,683	110,113	2,753	13,179	70,512	98,599	91,585	.93	4,496

MIDDLESEX COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.						LENGTH OF SCHOOLING.		HIGH SCHOOLS.									
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.				No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the year.	Average number of months public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	No. of pupils admitted to the freshman class.	No. of graduates.	Length of schooling.	Expenditures for high school support.
	Men.	Women.	In high schools.	In elementary schools.														
Acton,	11		1	-	7	-	\$48 82	105	9-11	1	3	41	23	4	10	\$2,608 04		
Arlington,	57	3	8	1	23	\$154 67	63 68	415	9-8	1	12	327	79	18	9-10	16,615 89		
Ashby,	4	1	2	2	2	80 00	45 00	33-19	8-10	1	2	21	8	2	9-9	1,441 28		
Ashland,	11	1	2	-	7	110 00	42 90	88-11	8-17	1	3	50	20	8	9-12	2,800 00		
Ayer,	12	1	3	-	7	130 00	48 42	94-11	9-9	1	4	93	39	12	9-18	4,137 11		
Bedford,	4	-	-	-	-	-	49 16	37	9-5	-	-	-	-	-	-	-	-	-
Belmont,	24	1	4	1	10	160 00	62 40	186	9-6	1	5	106	25	12	9-6	5,986 50		
Billerica,	14	1	3	1	6	73 68	45 26	145-12	9-2	1	3	55	14	5	9-15	2,716 00		
Boxborough,	4	-	-	-	2	-	39 00	37	9-5	-	-	-	-	-	-	-	-	-
Burlington,	3	-	-	-	1	-	42 66	27-12	9-4	-	-	-	-	-	-	-	-	-
Cambridge,	407	53	55	22	246	163 80	71 23	3,003-18	9-6	3	75	1,664	569	209	{ 9-8 9-8 9-8	{ 115,966 00		
Carlisle,	3	-	-	-	1	-	40 44	26-5	8-15	-	-	-	-	-	-	-	-	-
Chelmsford,	28	2	6	5	18	102 50	46 74	241-16	9-6	2	6	61	25	6	{ 9-16 9-16	{ 3,400 00		
Concord,	29	5	12	1	12	104 00	65 88	205-12	9-7	1	12	291	93	54	9-18	14,147 87		
Dracut,	18	-	-	-	13	-	45 55	147-11	9-4	-	-	-	-	-	-	-	-	-
Dunstable,	3	-	-	-	2	-	40 67	26-17	8-19	-	-	-	-	-	-	-	-	-
Everett,	167	11	14	4	97	148 50	61 23	1,281-16	9-2	1	19	561	243	90	9-11	26,292 22		
Frammingham,	60	5	8	2	46	130 00	54 06	478-10	9	1	9	272	111	29	9-11	12,550 00		
Groton,	13	1	3	1	3	130 00	47 53	88-18	8-17	1	4	82	26	16	9-6	3,848 00		
Holliston,	14	1	3	-	5	100 00	45 27	114-11	8-16	1	3	62	23	10	9-18	2,610 00		

SCHOOL RETURNS.

Hopkinton,	15	1	-	4	-	47 40	115-7	8-17	1	3	50	15	7	9-14	3,000 00
Hudson,	26	7	-	10	-	49 09	200-3	9-10	1	7	213	75	16	9-11	7,550 00
Lexington,	23	6	2	6	2	54 51	193-5	9-6	1	5	101	36	11	9-8	8,483 79
Lincoln,	5	-	-	1	-	53 89	45-24	9-5	-	-	-	-	-	-	-
Littleton,	8	3	1	5	1	50 37	64	9-2	1	3	45	16	3	10	2,406 60
Lowell,	318	21	13	116	13	68 44	2,520-16	9-4	1	35	1,085	396	168	9-10	55,572 00
Malden,	176	16	7	112	7	75 15	1,507-1	9-4	1	29	782	316	115	9-5	37,605 55
Marlborough,	64	6	1	14	1	55 01	582	9-1	1	12	388	95	43	9-10	12,940 00
Maynard,	21	5	-	14	-	52 86	194-17	9-16	1	5	64	25	7	9-16	4,000 00
Medford,	100	14	11	28	11	65 13	840-19	9-7	1	18	572	193	75	9-7	25,137 27
Melrose,	89	16	9	32	9	59 53	613-5	9-3	1	18	500	189	79	9-10	23,342 88
Natick,	46	9	3	26	3	53 11	371-7	9-5	1	10	267	103	44	9-14	10,707 59
Newton,	228	35	15	145	15	62 59	1,523	9-8	1	38	983	315	163	9-5	62,486 79
North Reading,	4	-	-	2	-	46 00	36-13	9-3	-	-	-	-	-	-	-
Pepperell,	19	3	-	7	-	42 80	154-8	8-12	1	3	93	28	12	9-8	4,027 50
Reading,	32	11	2	18	2	51 88	210-17	9-11	1	11	274	87	42	9-6	14,307 65
Sherborn,	6	1	-	5	-	42 00	59-10	8-15	1	2	26	11	4	8-15	1,311 00
Shirley,	8	1	-	8	-	42 08	70-6	8-16	1	1	24	7	2	9-15	1,512 93
Somerville,.	304	34	8	173	8	72 87	2,208-1	9-2	2	56	1,543	524	223	9-2	79,323 81
Stoneham,	29	5	1	10	1	51 88	236-12	9-2	1	5	140	68	19	9-7	6,500 00
Stow,	7	2	-	4	-	42 00	54-10	9-2	1	2	30	6	2	10	1,769 00
Sudbury,	7	2	-	5	-	47 59	62-9	8-18	1	2	23	11	1	9-15	1,682 53
Tewksbury,	6	-	-	5	-	45 33	56-15	9-9	-	-	-	-	-	-	-
Townsend,	10	3	-	4	-	41 20	77-11	8-14	1	3	63	10	5	9-11	2,125 05
Tyngsborough,	5	-	-	4	-	45 90	46-6	9-5	-	-	-	-	-	-	-
Wakefield,	62	7	2	30	2	51 17	470-6	9-8	1	12	315	124	35	9-10	13,573 46
Waltham,	94	14	5	47	5	62 81	695-12	9-8	1	16	453	177	65	9-7	25,339 00
Watertown,	45	7	1	15	1	67 68	334-18	9-1	1	8	203	71	19	9-6	9,350 00
Wayland,	12	5	2	9	2	45 12	99-25	9-2	1	3	65	19	4	9-18	3,417 99
Westford,	13	2	2	8	2	41 38	144-15	9-12	1	2	30	14	4	9-15	2,418 72
Weston,	10	4	-	5	-	60 52	64	9-2	1	4	64	23	7	9-5	5,525 00
Wilmington,	12	3	-	3	-	44 44	98-1	8-18	1	3	66	30	4	9-14	2,630 00
Winchester,	47	6	3	23	3	61 11	354-12	9-17	1	8	246	90	37	10	11,650 00
Woburn,	67	8	3	14	3	55 39	541-6	9-3	1	11	258	98	20	9-7	12,705 04
Totals,	2,804	381	131	1,420	131	963 24	21,635-16	9-6	48	495	12,652	4,470	1,744	9-10	\$667,520 06

1 Howe Academy.

2 United with Savin Academy.

3 Westford Academy.

MIDDLESEX COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total ex- penditure as given in the preced- ing column, but derived from other sources than local taxation, such as aid from the State, vol- untary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expended by such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and transient service.	Superintendent and assist- ants.	Text-books and school sup- plies.	School sundries.			
Auton,	\$5,198 00	\$1,673 00	\$1,394 85	\$93 14	\$480 00	\$625 20	\$264 41	\$9,728 60	\$1,532 48	\$8,196 12
Arlington,	41,467 13	-	8,315 86	345 00	2,500 00	4,991 07	959 72	58,578 78	1,858 19	56,720 59
Ashby,	2,531 10	1,811 83	527 90	-	340 00	200 28	78 45	5,489 56	2,325 95	3,163 61
Ashland,	5,813 11	1,079 60	1,321 76	65 00	625 00	587 06	305 39	9,796 92	2,702 48	7,094 44
Ayer,	7,241 50	97 50	1,875 80	50 00	825 00	1,033 27	150 05	11,273 12	1,602 80	9,670 32
Bedford,	4,316 42	995 00	665 30	-	570 00	257 72	142 27	6,946 71	2,100 50	4,846 21
Belmont,	17,322 25	280 00	4,657 01	18 95	1,500 00	1,301 45	559 75	25,639 41	208 00	25,431 41
Billerica,	7,464 00	764 50	2,381 32	180 00	750 00	529 05	393 50	12,462 37	1,480 00	10,982 37
Boxborough,	1,825 40	-	211 15	25 00	300 00	96 59	41 33	2,499 47	1,459 50	1,039 97
Burlington,	1,640 97	677 10	510 80	75 00	270 00	93 19	26 95	3,294 01	1,185 00	2,109 01
Cambridge,	383,209 80	222 00	78,195 96	8,501 00	4,815 00	23,720 61	4,919 02	503,583 39	7,694 61	495,888 78
Carlisle,	1,423 20	1,139 90	123 21	-	225 00	108 65	27 47	3,047 43	1,498 91	1,548 52
Chelmsford,	14,100 50	984 75	3,565 88	295 00	1,125 00	1,127 73	530 41	21,709 27	1,186 00	20,523 27
Concord,	25,006 05	3,469 00	3,907 62	209 50	425 00	2,441 63	2,175 25	37,634 05	6,974 86	30,659 19
Dracont,	11,811 70	513 55	2,863 69	51 00	1,000 00	709 74	281 34	17,231 02	1,686 44	15,544 58
Dunstable,	1,085 10	1,094 00	491 55	-	150 00	102 35	27 49	2,950 49	1,835 60	1,114 89
Everett,	120,308 19	-	25,214 41	1,229 20	2,500 00	14,749 49	5,840 38	169,841 67	300 50	169,541 17
Framingham,	36,454 50	2,409 50	7,589 99	152 00	2,000 00	3,707 78	2,592 51	54,906 28	632 89	54,273 39
Groton,	7,790 00	809 25	1,233 80	17 50	250 00	870 10	655 66	11,626 31	126 34	11,499 97
Holliston,	7,269 00	1,380 00	1,272 69	6 00	620 00	789 50	226 82	11,563 01	1,469 12	10,093 89

SCHOOL RETURNS.

Hopkinton,	6,503 00	794 55	1,775 17	16 00	920 00	502 30	525 93	11,036 95	2,036 43	9,000 52
Hudson,	15,986 71	790 26	3,970 76	175 38	1,500 00	1,485 33	1,152 59	25,061 03	295 00	24,766 03
Lexington,	18,805 50	2,863 45	5,672 29	275 00	900 00	2,010 87	970 54	31,497 65	273 32	31,224 33
Lincoln,	4,029 00	1,727 65	756 47	-	457 50	266 13	105 46	7,342 21	566 32	6,775 89
Littleton,	4,902 99	1,379 50	1,110 04	-	348 25	635 50	129 55	8,505 83	2,189 99	6,315 84
Lowell,	274,348 13	225 00	74,260 70	5,445 00	3,000 00	14,566 28	7,776 86	379,621 97	6,561 13	373,060 84
Malden,	152,673 45	-	28,657 89	2,380 00	2,640 00	9,863 90	9,068 61	205,283 85	-	205,283 85
Marlborough,	40,746 24	1,421 74	7,563 39	750 00	1,880 00	3,329 28	1,237 31	56,927 96	315 43	56,612 53
Maynard,	13,664 11	385 00	3,157 31	99 50	812 50	1,326 33	826 78	20,271 53	625 00	19,646 53
Medford,	88,412 17	-	16,466 57	1,900 00	2,800 00	5,498 93	5,895 37	120,973 04	165 50	120,807 54
Melrose,	65,791 08	546 00	16,759 51	570 00	2,420 00	5,799 86	2,364 85	94,251 30	-	94,251 30
Natick,	31,716 07	612 47	7,233 38	82 00	2,200 00	2,522 96	2,009 40	46,376 28	478 11	45,898 17
Newton,	192,126 12	2,040 00	31,058 70	2,977 25	4,000 00	17,064 72	7,457 15	256,713 94	-	256,713 94
North Reading,	3,436 74	944 50	721 17	72 00	200 00	278 30	60 00	5,712 71	2,546 66	3,166 05
Pepperell,	9,357 30	896 25	2,864 04	187 50	750 00	1,326 14	327 59	15,708 82	1,797 39	13,911 43
Reading,	21,289 75	570 00	6,491 31	40 00	973 33	1,997 62	3,705 46	35,067 47	2,067 71	32,999 76
Sherborn,	2,498 55	1,461 35	698 25	17 65	300 00	394 34	98 07	5,468 21	1,337 63	4,130 58
Shirley,	3,687 74	1,437 50	751 57	135 00	457 14	433 46	70 00	6,972 41	1,887 65	5,084 76
Somerville,	267,607 11	-	43,427 63	2,500 00	3,000 00	16,550 13	7,767 20	340,852 07	-	340,852 07
Stoneham,	19,843 41	269 40	5,520 47	118 94	1,040 00	1,667 90	741 78	29,201 90	180 00	29,021 90
Stow,	3,989 54	995 15	931 89	100 00	412 50	383 84	6 00	6,818 92	2,697 20	4,121 72
Sudbury,	4,310 71	1,968 60	1,103 49	158 20	450 00	620 80	227 47	8,839 27	2,164 28	6,674 99
Tewksbury,	4,794 60	857 60	870 33	103 45	625 00	256 74	151 36	7,659 08	2,105 49	5,553 59
Townsend,	4,868 00	1,291 25	1,074 33	8 50	850 00	458 06	162 68	8,712 82	1,419 07	7,293 75
Tyngsborough,	2,838 06	1,474 00	562 85	29 40	203 24	176 58	133 13	5,417 26	2,214 72	3,202 54
Wakefield,	42,461 35	-	8,073 18	-	1,800 00	3,697 28	1,741 48	57,773 29	2,137 74	55,635 55
Waltham,	73,738 00	1,099 91	16,123 65	900 00	2,275 00	5,488 37	1,286 70	100,911 63	140 50	100,771 13
Watertown,	34,472 91	452 50	7,122 54	350 00	1,800 00	2,242 65	1,794 81	48,235 41	109 00	48,126 41
Wayland,	7,612 37	1,902 85	1,903 08	186 65	796 92	1,278 76	408 70	14,089 33	1,628 24	12,461 09
Westford,	8,219 44	1,059 20	1,374 84	10 60	800 00	752 90	304 36	12,521 34	1,702 50	10,818 84
Weston,	9,004 71	4,259 25	2,121 61	450 00	100 00	680 00	1,073 28	17,688 85	-	17,688 85
Wilmington,	6,329 52	225 00	1,369 82	150 00	787 50	758 47	99 76	9,720 07	1,783 13	7,936 94
Winchester,	35,205 77	513 00	7,556 35	700 00	2,240 00	2,803 70	2,207 79	51,226 61	260 00	50,966 61
Woburn,	44,415 74	144 80	8,574 90	1,025 71	2,000 00	2,961 90	746 73	59,869 78	683 50	59,186 28
Totals,	\$2,222,963 81	\$53,988 21	\$464,000 03	\$33,226 02	\$67,006 88	\$168,112 79	\$82,832 92	\$3,092,132 66	\$82,228 81	\$3,009,903 85

MIDDLESEX COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDING.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total, expended in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.				Principal.	Income.	
Acton,	-	\$4,506 26	\$466 25	\$4,972 51	-	\$4,972 51	-	-	\$402 82
Arlington,	-	2,499 86	1,058 41	3,558 27	-	3,558 27	\$39,624 03	\$1,627 36	-
Ashby,	-	-	50 00	50 00	-	50 00	637 00	25 72	-
Ashland,	-	-	658 22	658 22	-	658 22	-	-	345 89
Ayer,	-	567 95	230 43	798 38	-	798 38	-	-	306 34
Bedford,	-	-	238 63	238 63	-	238 63	-	-	-
Belmont,	-	-	543 57	543 57	-	543 57	-	-	-
Billerica,	-	-	663 63	663 63	-	663 63	-	-	388 37
Boxborough,	-	-	20 70	20 70	-	20 70	-	-	-
Burlington,	-	40 00	284 50	324 50	-	324 50	-	-	111 60
Cambridge,	\$39,763 32	12,685 07	12,671 66	65,120 05	-	65,120 05	-	-	-
Carlisle,	-	65 00	160 04	225 04	\$40 00	185 04	500 00	20 20	-
Chelmsford,	4,834 80	551 20	819 72	6,205 72	-	6,205 72	-	-	594 83
Concord,	-	267 48	754 54	1,022 02	-	1,022 02	26,300 00	1,364 82	-
Dracut,	195 67	714 69	198 84	1,109 20	-	1,109 20	3,000 00	115 45	785 01
Dunstable,	-	186 00	9 16	195 16	-	195 16	-	-	-
Everett,	-	-	7,458 06	7,458 06	-	7,458 06	-	-	-
Frammingham,	81,119 40	2,933 70	2,809 76	86,862 86	-	86,862 86	1,259 00	75 54	1,420 49
Groton,	-	-	799 91	799 91	-	799 91	-	-	-
Holliston,	-	-	305 96	305 96	-	305 96	-	-	-

SCHOOL RETURNS.

Hopkinton, . .	-	-	-	44 54	44 54	-	44 54	9,045 06	5,836 00	233 44	351 98
Hudson, . .	-	-	176 45	516 97	693 42	-	693 42	25,459 45	706 12	26 71	368 70
Lexington, . .	-	-	450 00	451 85	901 85	-	901 85	32,126 18	-	-	-
Lincoln, . .	-	5,232 88	-	203 64	5,436 52	-	5,436 52	12,212 41	1,307 00	48 82	-
Littleton, . .	-	-	1,792 31	419 00	2,211 31	-	2,211 31	8,527 15	3,500 00	210 00	842 61
Lowell, . .	-	-	282 67	36,823 40	37,106 07	-	37,106 07	410,166 91	-	-	-
Malden, . .	-	215,968 89	12,763 94	8,976 94	237,699 77	-	237,699 77	442,983 62	-	-	-
Marlborough, . .	-	-	488 09	1,893 32	2,381 41	-	2,381 41	58,993 94	5,600 75	270 44	-
Maynard, . .	-	-	-	745 35	745 35	-	745 35	20,391 88	-	-	-
Medford, . .	-	-	12,762 18	7,219 15	19,981 33	-	19,981 33	140,788 87	-	-	-
Melrose, . .	-	-	427 00	5,498 60	5,925 60	-	5,925 60	100,176 90	-	-	-
Natick, . .	-	-	-	2,344 18	2,344 18	-	2,344 18	48,242 35	-	-	-
Newton, . .	-	-	-	11,009 85	11,009 85	-	11,009 85	267,723 79	-	-	3,819 46
North Reading, . .	-	-	229 10	636 79	865 89	-	865 89	4,031 94	-	-	1,009 33
Pepperell, . .	-	-	-	698 62	698 62	-	698 62	14,610 05	-	-	-
Reading, . .	-	-	-	1,117 63	1,117 63	-	1,117 63	34,117 39	-	-	-
Sherborn, . .	-	-	-	59 94	59 94	-	59 94	4,190 52	-	-	125 52
Shirley, . .	-	-	292 27	90 00	382 27	-	382 27	5,467 03	11,040 57	419 82	-
Somerville, . .	-	31,804 34	7,158 64	10,849 21	49,812 19	-	49,812 19	390,664 26	-	-	-
Stoneham, . .	-	-	187 50	687 91	875 41	-	875 41	29,897 31	-	-	-
Stow, . .	-	-	-	100 00	100 00	-	100 00	4,221 72	12,000 00	545 00	186 37
Sudbury, . .	-	-	304 09	122 11	426 20	-	426 20	7,101 19	3,453 00	46 04	260 03
Tewksbury, . .	-	-	-	491 27	491 27	-	491 27	6,044 86	-	-	668 42
Townsend, . .	-	-	-	310 15	310 15	-	310 15	7,603 90	-	-	-
Tyngsborough, . .	-	-	-	56 68	56 68	-	56 68	3,259 22	2,279 16	114 73	11 10
Wakefield, . .	-	-	1,259 81	1,151 22	2,411 03	-	2,411 03	58,046 58	-	-	-
Waltham, . .	-	-	4,211 70	3,551 25	7,762 95	-	7,762 95	108,534 08	-	-	-
Watertown, . .	-	-	-	2,892 52	2,892 52	-	2,892 52	51,018 93	-	-	-
Wayland, . .	-	-	-	210 59	210 59	-	210 59	12,671 68	-	-	186 41
Westford, . .	-	8,408 61	1,778 00	257 82	10,444 43	-	10,444 43	21,263 27	-	-	-
Weston, . .	-	-	-	462 58	462 58	-	462 58	18,151 43	-	-	-
Wilmington, . .	-	-	-	83 47	83 47	-	83 47	8,020 41	-	-	308 43
Winchester, . .	-	-	-	2,936 98	2,936 98	-	2,936 98	53,903 59	2,000 00	37 84	-
Woburn, . .	-	43,567 16	209 88	4,335 58	48,112 62	-	48,112 62	107,298 90	-	-	-
Totals, . .	-	\$430,885 07	\$69,790 84	\$137,451 10	\$638,127 01	\$40 00	\$638,087 01	\$3,647,990 86	\$119,042 63	\$5,181 93	\$11,993 21

NANTUCKET COUNTY.

TOWNS AND CITIES.	Population — State Census of 1905.	Valuation — May 1, 1907.	No. of public schools.	SCHOOL CENSUS DATA SEPT. 1, 1907.		SCHOOL MEMBERSHIP, ATTENDANCE AND GRADUATION DATA FOR THE SCHOOL YEAR.							
				No. of persons in towns be- tween 5 and 15 years of age.	No. of persons in towns be- tween 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils with- in the year under 5 years of age.	No. of different pupils with- in the year over 15 years of age.	No. of different pupils with- in the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average mem- bership.	No. graduated from gram- mar schools.
Nantucket, . .	2,930	\$3,324,382	11	412	300	514	1	62	273	395	373	.94	27

NORFOLK COUNTY.

Avon,	1,901	\$956,341	9	412	309	434	2	20	323	364	339	.93	22
Bellingham,	1,686	814,430	10	313	228	304	-	5	220	260	240	.92	13
Braintree,	6,879	5,641,048	33	1,261	914	1,599	92	153	915	1,355	1,225	.90	95
Brookline,	23,436	95,957,900	98	3,614	2,655	4,307	360	324	2,573	3,755	3,464	.92	200
Canton,	4,702	3,944,165	17	831	669	662	7	60	426	576	531	.92	38
Cohasset,	2,727	7,148,207	11	443	327	469	-	59	305	429	398	.93	32
Dedham,	7,774	12,053,818	40	1,396	1,060	1,740	175	183	1,013	1,607	1,480	.92	108
Dover,	636	1,176,136	6	129	100	135	2	8	96	109	102	.93	15
Foxborough,	3,364	2,206,004	16	533	393	620	1	62	472	574	524	.91	34
Franklin,	5,244	3,657,760	21	1,043	762	1,141	2	113	765	945	842	.89	37
Holbrook,	2,509	1,367,653	13	488	337	536	12	24	375	496	456	.92	31
Hyde Park,	14,510	13,605,530	43	2,649	2,063	1,922	-	298	1,264	1,833	1,719	.94	124

SCHOOL RETURNS.

Medfield,	.	3,314	1,546,108	7	239	176	276	11	33	172	246	233	.94	15
Medway,	.	2,650	1,346,855	12	408	303	495	1	42	366	445	411	.92	23
Millis, .	.	1,252	753,625	7	262	174	263	-	36	181	243	225	.93	19
Milton,	.	7,054	22,769,100	44	1,330	977	1,508	119	172	882	1,346	1,244	.92	86
Needham,	.	4,284	5,187,283	24	796	585	905	3	78	589	857	796	.92	62
Norfolk,	.	1,089	777,944	5	150	112	157	3	12	93	139	127	.91	4
Norwood,	.	6,731	6,012,385	33	1,446	1,057	1,539	11	152	989	1,471	1,380	.94	98
Plainville,	.	1,300	729,609	7	208	142	233	1	25	142	201	184	.91	16
Quincy,	.	28,076	27,170,555	115	7,258	5,845	6,238	3	261	4,386	5,670	5,201	.92	435
Randolph,	.	4,034	1,977,350	16	707	589	729	5	42	506	650	623	.96	57
Sharon,	.	2,085	2,537,980	11	346	246	388	1	40	253	326	293	.90	28
Stoughton,	.	5,959	3,436,563	23	991	719	913	14	71	637	836	771	.92	30
Walpole,	.	4,003	4,102,944	21	807	561	859	4	74	781	791	735	.93	47
Wellesley,	.	6,189	13,546,940	24	774	614	924	20	127	619	873	812	.93	48
Westwood,	.	1,136	2,159,112	6	241	173	221	-	6	143	193	177	.91	22
Weymouth,	.	11,585	7,269,084	54	2,028	1,548	2,260	23	204	1,488	2,144	2,077	.97	140
Wrentham,	.	1,428	1,154,470	8	223	156	229	-	25	204	216	193	.90	9
Totals, .	.	167,537	\$251,006,899	734	31,326	23,794	32,056	872	2,709	21,178	28,950	26,802	.93	1,888

NANTUCKET COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.						LENGTH OF SCHOOLING.		HIGH SCHOOLS.							
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.		No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Average number of months public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	No. of pupils admitted to the freshman class.	No. of graduates.	Length of schooling.	Expenditures for high school support.
	Men.	Women.	In high schools.	In elementary schools.												
Nantucket,	1	17	1	-	4	\$100 00	\$33 50	107-4	9-15	1	4	74	26	11	10	\$3,300 00

NORFOLK COUNTY — CONTINUED.

Avon,	1	9	2	-	4	\$102 56	\$42 90	81-9	9-2	1	2	60	23	5	9-15	\$1,961 98
Bellingham,	-	10	-	-	6	-	41 44	92-5	9-5	-	-	-	-	-	-	-
Braintree,	2	39	6	1	20	110 00	49 54	312-12	9-10	1	6	181	85	14	9-13	6,938 34
Brookline,	15	137	15	2	62	211 00	75 61	950-12	9-14	1	21	476	196	59	9-14	43,328 44
Canton,	1	18	3	-	6	150 00	53 20	170	10	1	3	67	33	12	10	3,559 74
Cohasset,	1	14	4	1	8	174 00	54 60	110	10	1	5	65	26	17	10	5,121 43
Dedham,	5	51	6	2	37	150 00	65 00	367-13	9-4	1	9	202	65	37	9-4	11,318 88
Dover,	1	6	1	1	4	62 41	50 49	55-19	9-7	1	1	10	14	2	9-14	866 68
Foxborough,	1	17	3	1	3	138 95	44 92	138-16	8-14	1	3	74	29	10	9-5	3,415 52
Franklin,	2	23	3	2	9	65 33	48 48	184-17	8-16	1	4	104	42	14	9-11	4,500 00
Holbrook,	1	13	3	-	8	120 00	45 15	119-16	9-4	1	2	80	29	7	9-6	2,000 00
Hyde Park,	10	44	13	4	19	137 50	54 72	362-14	9-3	1	14	379	112	59	9-5	14,038 11

Medfield, .	1	7	2	-	4	98 00	46 91	67-5	9-14	1	2	31	14	-	9-15	1,941 22
Medway, .	1	13	3	-	9	95 00	43 00	106-13	8-18	1	3	48	13	5	9-17	2,270 00
Millis, .	1	7	2	-	4	73 88	41 75	61-15	8-16	1	2	43	16	8	9-13	1,584 64
Milton, .	5	55	6	-	39	176 39	73 21	396-17	9	1	9	163	60	24	9-2	15,600 00
Needham, .	2	27	5	2	10	115 00	49 63	223-8	9-6	1	5	117	33	27	9-8	5,695 15
Norfolk, .	1	4	1	-	3	70 00	45 00	44-8	8-17	1	1	20	4	8	9-10	1,244 50
Norwood, .	2	38	7	3	22	132 80	61 52	301-17	9-3	1	7	135	33	28	9-9	7,403 39
Plainville, .	1	8	3	-	4	107 50	42 25	64-15	9-5	1	3	33	15	9	9-15	2,367 64
Quincy, .	16	132	16	1	62	125 79	63 92	1,064	9-5	1	22	742	303	95	9-15	25,623 60
Randolph, .	3	15	3	-	6	119 29	46 80	146-13	9-3	1	3	90	39	7	8-18	3,284 83
Sharon, .	1	12	3	-	7	120 00	50 00	110	10	1	3	66	28	10	10	2,700 00
Stoughton, .	1	25	3	-	9	150 00	49 68	189-19	8-13	1	4	69	26	13	9-13	3,726 00
Walpole, .	4	22	4	-	14	84 50	51 11	203-4	9-14	1	5	123	45	16	9-16	5,615 00
Wellesley, .	1	39	6	3	21	220 00	62 43	213-12	8-18	1	6	143	43	28	9-15	9,265 17
Westwood, .	1	5	-	-	6	90 00	52 60	55-17	9-6	-	-	-	-	-	-	-
Weymouth, .	7	57	7	-	29	99 28	48 77	514-7	9-7	1	9	250	108	42	9-14	10,574 00
Wrentham, .	1	9	3	-	6	110 00	43 11	76-10	9-11	1	3	36	18	12	10	2,401 67
Totals, .	89	856	133	23	441	\$138 25	\$59 20	6,787-13	9-5	27	157	3,807	1,452	568	9-12	\$198,345 93

NANTUCKET COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.						Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and transient service.	Superintendent and assistants.	Text-books and school supplies.			
Nantucket, .	\$6,686 50	\$80 00	\$1,137 60	\$34 90	-	\$751 58	\$349 41	\$9,039 99	\$8,732 79

NORFOLK COUNTY — CONTINUED.

Avon, .	\$4,918 00	-	\$1,197 00	\$105 00	\$400 00	\$547 98	\$567 74	\$7,735 72	\$5,811 02
Bellingham, .	4,609 00	\$1,181 20	1,486 88	-	644 65	412 67	110 91	8,445 31	6,707 66
Braintree, .	21,872 93	1,682 50	5,226 70	130 00	1,600 00	1,892 01	1,543 34	33,947 48	33,479 48
Brookline, .	144,878 99	2,174 75	27,245 60	3,223 38	4,000 00	14,405 29	11,242 70	207,170 71	207,170 71
Canton, .	11,801 25	115 00	3,220 17	25 00	1,800 00	1,963 34	40 00	18,984 76	18,705 26
Cohasset, .	10,443 00	3,064 50	2,148 38	115 00	750 00	1,052 19	433 90	18,006 97	17,969 13
Dedham, .	40,284 70	511 41	7,403 48	100 00	2,200 00	3,235 85	998 74	54,734 18	52,705 75
Dover, .	3,856 63	1,130 34	631 28	202 26	285 00	266 13	228 35	6,599 99	4,921 55
Foxborough, .	8,834 47	1,099 60	3,577 35	282 35	900 00	699 13	473 97	15,866 87	14,239 75
Franklin, .	13,466 01	2,890 95	4,202 53	-	1,000 00	2,616 57	645 62	24,821 68	23,799 13
Holbrook, .	6,790 30	-	1,809 03	150 00	500 00	501 41	799 04	10,549 78	9,116 30
Hyde Park, .	39,631 96	-	8,903 97	250 00	2,558 34	4,640 78	6,002 74	61,967 79	61,967 79

SCHOOL RETURNS.

Medfield, .	4,981 86	253 00	973 39	105 00	625 00	689 13	326 80	7,954 18	1,954 18	6,000 00
Medway, .	6,418 60	1,033 50	1,125 17	16 00	600 00	535 74	1,454 78	11,183 79	1,235 99	9,947 80
Millis, .	3,425 45	1,001 50	918 64	70 00	500 00	352 76	143 89	6,412 24	1,954 36	4,457 88
Milton, .	47,724 43	1,631 50	10,495 99	505 83	2,475 00	3,889 37	1,612 72	68,334 84	-	68,334 84
Needham, .	16,387 78	446 00	3,810 84	30 00	1,000 00	1,210 83	1,551 47	24,436 92	459 50	23,977 42
Norfolk, .	3,007 75	1,273 91	554 22	112 50	500 00	202 93	15 62	5,666 93	1,638 06	4,028 87
Norwood, .	26,214 10	551 75	6,238 09	170 00	2,000 00	2,682 35	2,356 48	40,212 77	172 00	40,040 77
Plainville, .	4,627 25	742 50	1,479 15	128 75	472 50	441 41	252 62	8,144 18	1,719 25	6,424 93
Quincy, .	98,186 20	1,243 80	16,941 76	900 00	2,500 00	8,063 91	2,097 83	129,933 50	300 26	129,633 24
Randolph, .	10,582 84	361 50	1,343 87	340 00	600 00	1,395 60	1,044 34	15,668 15	1,680 73	13,987 42
Sharon, .	8,732 03	87 70	1,673 80	45 00	360 00	760 56	15 00	11,674 09	2,143 19	9,530 90
Stoughton, .	13,176 75	233 00	3,205 07	268 47	700 00	1,996 36	1,016 60	20,596 25	717 00	19,879 25
Walpole, .	15,566 01	1,436 00	3,699 11	25 00	1,133 33	1,884 84	1,244 43	24,988 72	308 50	24,680 22
Wellesley, .	25,785 00	475 00	6,012 00	80 50	1,500 00	2,560 91	1,321 28	37,734 69	246 10	37,488 59
Westwood, .	5,145 50	928 50	935 55	134 00	500 00	327 85	167 81	8,139 21	1,246 91	6,892 30
Weymouth, .	36,380 72	2,110 00	8,400 00	523 10	2,000 00	3,643 93	674 97	53,732 72	108 00	53,624 72
Wrentham, .	5,014 10	1,026 80	1,090 67	100 00	480 00	538 26	208 10	8,457 93	1,114 53	7,343 40
Totals, .	\$642,743 61	\$28,686 21	\$135,949 69	\$8,137 14	\$34,583 82	\$63,410 09	\$38,591 79	\$952,102 35	\$29,216 27	\$922,886 08

NANTUCKET COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.					Principal.	Income.	
Nantucket,	-	\$468 81	\$764 07	\$1,232 88	-	\$1,232 88	\$9,965 67	-	-	\$307 20

NORFOLK COUNTY — CONTINUED.

Avon,	\$10,000 00	\$60 00	\$485 14	\$10,545 14	-	\$10,545 14	\$16,356 16	-	-	-
Bellingham,	-	-	27 50	27 50	-	27 50	6,735 16	-	-	\$293 55
Braintree,	-	270 00	480 86	750 86	-	750 86	34,230 34	\$6,700 00	\$300 00	913 14
Brookline,	-	1,359 18	7,063 54	8,412 72	-	8,412 72	215,583 43	-	-	-
Canton,	-	-	785 77	785 77	-	785 77	19,491 03	-	-	624 12
Cohasset,	-	-	2,141 28	2,141 28	-	2,141 28	20,110 41	1,000 00	37 84	511 59
Dedham,	-	834 80	2,399 60	3,234 40	-	3,234 40	55,940 15	-	-	-
Dover,	-	-	428 51	428 51	-	428 51	5,350 06	-	-	-
Foxborough,	-	150 00	373 05	523 05	-	523 05	14,762 80	-	-	717 36
Franklin,	-	161 73	823 97	985 70	-	985 70	24,784 83	-	-	724 24
Holbrook,	-	600 00	300 00	900 00	-	900 00	10,016 30	-	-	-
Hyde Park,	-	2,000 00	4,002 74	6,002 74	-	6,002 74	67,990 53	-	-	-

SCHOOL RETURNS.

Medfield,	-	-	281 19	-	281 19	6,281 19	3,540 00	141 60	-
Medway,	-	142 53	457 80	-	600 33	10,548 13	-	-	-
Millis,	-	872 20	119 78	-	991 98	5,449 86	-	-	-
Milton,	-	5,186 02	3,611 72	-	8,797 74	77,132 58	-	-	-
Needham,	-	1,373 68	1,621 17	-	2,994 85	26,972 27	6,000 00	-	-
Norfolk,	-	25 00	55 57	-	80 57	4,109 44	-	-	170 89
Norwood,	23,167 89	2,103 29	1,164 76	-	26,435 94	66,476 71	-	-	-
Plainville,	-	-	-	-	-	6,424 93	727 30	29 09	335 12
Quincy,	120,800 41	3,035 23	2,852 96	-	126,688 60	256,321 84	1,000 00	40 00	-
Randolph,	-	2,310 97	430 91	-	2,741 88	16,729 30	19,212 66	967 26	493 77
Sharon,	-	-	205 00	-	205 00	9,735 90	12,671 78	682 69	-
Stoughton,	-	1,019 93	497 28	-	1,517 21	21,396 46	1,000 00	36 55	-
Walpole,	29,949 35	-	1,641 27	-	31,590 62	56,270 84	-	-	638 66
Wellesley,	54,300 64	-	1,882 44	-	56,183 08	93,671 67	-	-	-
Westwood,	-	656 52	141 73	-	798 25	7,690 55	1,000 00	40 00	2 50
Weymouth,	53,194 95	-	1,928 36	-	55,123 31	108,748 03	-	-	666 64
Wrentham,	-	-	295 61	-	295 61	7,639 01	1,090 96	61 96	291 70
Totals,	\$291,413 24	\$22,161 08	\$36,489 51	-	\$350,063 83	\$1,272,949 91	\$53,942 70	\$2,336 99	\$6,383 28

NANTUCKET COUNTY — CONCLUDED.

TOWNS AND CITIES.	Town's share of school fund income paid Jan. 25, 1908.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	ACADEMIES AND PRIVATE SCHOOLS.				ESTIMATED AMOUNT OF TUITION PAID IN —		FUNDS WHOSE INCOME MUST BE APPROPRIATED TO ACADEMIES OR PRIVATE SCHOOLS.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Nantucket,	-	-	-	-	-	-	-	-	-	-

NORFOLK COUNTY — CONCLUDED.

Avon,	\$997 50	-	-	-	-	-	-	-	-	-
Bellingham,	1,229 99	-	-	-	-	-	-	-	-	-
Braintree,	-	-	-	-	-	362	-	\$9,000 00	-	-
Brookline,	-	-	-	-	2	275	-	-	-	-
Canton,	-	-	-	-	1	-	-	-	-	-
Cohasset,	-	\$200 00	-	-	-	-	-	-	-	-
Dedham,	-	-	-	-	1	21	-	2,000 00	-	-
Dover,	1,079 99	-	-	-	-	-	-	-	-	-
Foxborough,	1,004 99	-	-	-	-	-	-	-	-	-
Franklin,	-	100 00	1	205	-	-	\$10,534 10	-	\$105,000 00	\$5,800 00
Holbrook,	847 49	-	-	-	-	-	-	-	-	-
Hyde Park,	-	85 00	-	-	-	-	-	-	-	-

PLYMOUTH COUNTY.

TOWNS AND CITIES.	SCHOOL CENSUS DATA SEPT. 1, 1907.		Valuation — May 1, 1907.	No. of public schools.	SCHOOL MEMBERSHIP, ATTENDANCE AND GRADUATION DATA FOR THE SCHOOL YEAR.							
	No. of persons in towns be- tween 5 and 15 years of age.	No. of persons in towns be- tween 7 and 14 years of age.			No. of different pupils of all ages in the public schools during the school year.	No. of different pupils with- in the year under 5 years of age.	No. of different pupils with- in the year over 15 years of age.	No. of different pupils with- in the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average mem- bership.	No. graduated from gram- mar schools.
Abington, .	469	331	\$2,781,295	19	992	10	138	666	927	859	.93	72
Bridgewater, .	714	594	3,247,381	25	937	41	87	577	831	756	.91	41
Brockton, .	8,480	6,218	37,408,333	181	8,799	19	913	5,799	8,115	7,606	.94	442
Carver, .	208	163	1,319,350	10	217	1	5	171	191	162	.85	15
Duxbury, .	239	173	2,142,747	10	247	5	40	155	230	206	.90	9
East Bridgewater, .	548	387	1,733,646	14	608	-	65	411	561	519	.93	37
Halifax, .	83	67	469,237	3	95	-	5	76	79	67	.85	5
Hanover, .	359	261	1,423,645	11	405	8	46	264	371	339	.91	20
Hanson, .	286	206	1,253,490	8	245	3	3	177	219	194	.89	11
Hingham, .	749	527	5,809,762	20	893	-	143	520	826	779	.94	51
Hull, .	191	143	5,084,970	8	250	-	25	168	221	209	.94	20
Kingston, .	395	270	1,669,180	11	395	-	39	288	373	347	.93	17
Lakeville, .	141	116	663,088	6	257	1	2	120	138	125	.91	-
Marion, .	142	92	2,541,610	6	135	-	5	93	125	117	.94	11
Marshfield, .	242	177	1,841,430	11	291	3	49	177	263	235	.89	22
Mattapoisett, .	219	186	1,570,395	7	197	2	11	152	187	173	.93	11
Middleborough, .	1,260	904	4,410,609	35	1,501	-	169	1,004	1,261	1,172	.93	62
Norwell, .	227	168	873,069	7	257	1	30	167	233	205	.88	18
Pembroke, .	191	136	950,845	7	209	1	12	142	174	152	.88	8
Plymouth, .	1,973	1,408	10,263,593	50	2,018	-	150	1,394	1,878	1,756	.94	55

Plympton, . . .	514	326,773	3	73	56	66	1	11	45	49	42	.86	4
Rochester, . . .	1,181	623,905	6	164	117	165	1	2	130	137	122	.89	10
Rockland, . . .	6,287	3,759,117	25	1,059	754	1,197	11	154	779	1,130	1,067	.94	74
Scituate, . . .	2,597	4,191,570	12	427	354	514	-	67	447	451	415	.92	28
Wareham, . . .	3,660	3,642,522	21	543	483	628	-	73	427	577	530	.92	40
West Bridgewater, . . .	2,006	1,188,741	10	388	288	352	1	5	259	348	322	.92	23
Whitman, . . .	6,521	4,536,965	26	1,260	889	1,346	2	139	901	1,284	1,204	.94	55
Totals, . . .	127,932	\$106,727,268	554	21,030	15,468	23,216	111	2,388	15,509	21,179	19,680	.93	1,161

SUFFOLK COUNTY.

Boston, . . .	595,380	\$1,313,471,557	1,870	104,150	71,529	106,370	3,058	9,784	60,236	94,903	86,129	.91	4,948
Chelsea, . . .	37,289	26,411,450	97	7,440	6,996	7,029	-	566	5,013	6,543	6,047	.92	370
Revere, . . .	12,659	14,352,175	72	3,203	2,136	3,150	3	294	2,076	2,961	2,759	.93	204
Winthrop, . . .	7,034	10,078,075	31	1,398	987	1,645	-	235	1,036	1,483	1,365	.93	91
Totals, . . .	652,362	\$1,364,313,257	2,070	116,191	81,648	118,194	3,061	10,879	68,361	105,890	96,300	.91	5,613

PLYMOUTH COUNTY — CONTINUED.

Plympton,	-	3	-	-	-	3	-	39	54	26-5	8-15	-	-	-	-	-	-	-	-	-	-	-
Rochester,	1	5	-	-	-	6	60 00	40	00	52-19	8-16	-	-	-	-	-	-	-	-	-	-	
Rockland,	4	27	-	-	-	14	96 25	50	46	239-6	9-12	1	197	79	23	9-14	6,355	00				
Scituate,	1	13	-	-	-	2	125 00	58	00	114	9-10	1	67	27	11	10	3,350	00				
Wareham,	1	22	-	-	1	5	120 00	44	07	190	9-1	1	60	35	2	10	4,311	59				
W. Bridgewater,	-	11	-	-	-	7	-	46	46	86-9	8-13	1	26	12	5	8-17	-					
Whitman,	2	33	-	-	-	18	115 00	54	94	263-10	9-8	1	214	82	23	9-10	7,199	94				
Totals,	61	606	82	13	354	\$121 39	\$52 83	5,084-6	9-4	20	120	2,776	1,028	377	9-12	\$137,890 58						

SUFFOLK COUNTY — CONTINUED.

Boston,	302	2,197	167	105	1,759	\$217 95	\$73 14	17,531	9-8	14	298	8,591	3,446	1,809	130-4	\$674,048 51
Chelsea,	9	186	10	2	98	171 67	71 54	1,213-18	9-5	1	19	518	227	72	8-9	24,000 00
Revere,	3	82	5	6	31	145 00	56 66	625-15	9-4	1	8	243	117	22	9-7	8,513 00
Winthrop,	4	36	7	2	26	156 25	64 10	288-6	9-6	1	9	202	89	27	9-6	11,425 00
Totals,	318	2,501	189	115	1,914	\$215 15	\$72 35	19,658-19	9-10	17	334	9,554	3,879	1,930	9-5	\$717,986 51

1 Partridge Academy.

2 Tabor Academy.

3 Howard Seminary.

4 Estimated.

PLYMOUTH COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and trust service.	Superintendent and assistants.	Text-books and school supplies.	School sundries.			
Abington,	\$16,047 25	\$930 00	\$3,024 82	\$340 00	\$1,033 33	\$2,069 48	\$1,548 26	\$24,993 14	\$1,193 00	\$23,800 14
Bridgewater,	23,448 00	882 57	1,776 45	-	1,033 33	1,486 21	405 59	29,032 15	7,767 50	21,264 65
Brockton,	160,760 05	125 00	38,717 71	2,362 00	4,300 00	14,779 64	7,465 94	228,510 34	304 77	228,205 57
Carver,	4,156 95	68 00	553 38	191 00	600 00	484 77	23 00	6,077 10	1,173 68	4,903 42
Duxbury,	5,160 33	-	794 72	48 50	500 00	303 64	225 49	7,032 68	1,545 28	5,487 40
East Bridgewater,	8,392 55	623 00	1,658 97	-	700 00	818 39	338 99	12,531 90	1,789 42	10,742 48
Halifax,	1,343 46	1,055 56	382 58	10 00	210 00	74 13	39 75	3,115 48	1,273 16	1,842 32
Hanover,	6,716 30	589 00	1,206 78	130 00	520 00	682 18	52 64	9,896 90	1,384 02	8,512 88
Hanson,	4,471 50	440 50	201 31	179 58	520 00	493 02	370 84	6,676 75	1,528 09	5,148 66
Hingham,	18,457 50	950 00	4,900 85	115 00	1,300 00	1,806 32	1,435 35	28,965 02	1,345 50	27,619 52
Hull,	5,328 25	1,840 65	2,247 22	235 00	250 00	654 89	680 82	11,236 83	-	11,236 83
Kingston,	6,999 00	516 55	1,333 46	148 05	630 00	673 13	383 80	10,683 99	1,644 00	9,039 99
Lakeville,	3,045 50	615 00	182 95	13 25	450 00	125 87	43 97	4,476 54	2,064 45	2,412 09
Marion,	2,890 00	525 05	538 96	183 50	700 00	790 22	41 29	5,669 02	1,034 09	4,634 93
Marshfield,	5,444 16	940 20	316 15	143 50	500 00	593 16	324 75	8,261 92	1,364 67	6,897 25
Mattapoisett,	3,307 00	1,140 76	989 49	94 25	350 00	415 40	113 73	6,410 63	1,053 96	5,356 67
Middleborough,	20,484 50	1,910 12	4,217 59	150 00	2,000 00	1,829 38	470 45	31,062 04	1,594 93	29,467 11
Norwell,	4,269 50	2,544 50	503 75	101 50	520 00	327 77	100 08	8,367 10	2,438 16	5,928 94
Pembroke,	2,986 73	240 00	668 25	56 00	525 00	283 58	20 85	4,780 41	1,457 05	3,323 36
Plymouth,	32,896 74	851 18	7,472 23	100 00	2,000 00	2,515 54	1,103 17	46,938 86	18 25	46,920 61

Plympton, . . .	1,327 84	5 90	175 24	50 00	211 66	127 18	41 38	1,939 20	1,136 67	802 53
Rochester, . . .	3,234 87	516 00	197 94	65 93	450 00	188 88	38 08	4,691 70	1,881 70	2,810 00
Rockland, . . .	18,092 62	88 85	3,604 25	-	1,000 00	2,116 28	1,302 95	26,204 95	188 75	26,016 20
Scituate, . . .	8,560 39	4,144 00	2,189 92	250 00	500 00	1,517 56	218 57	17,380 44	59 50	17,320 94
Wareham, . . .	11,161 25	1,022 75	2,153 64	268 05	1,001 25	1,551 66	204 67	17,363 27	965 40	16,397 87
West Bridgewater, . . .	5,009 47	743 63	939 91	111 50	547 64	263 87	159 20	7,775 22	1,466 69	6,308 53
Whitman, . . .	20,701 30	-	4,779 96	330 00	1,000 00	2,858 04	1,740 30	31,409 60	1,130 74	30,278 86
Totals, . . .	\$404,693 01	\$23,308 77	\$65,728 48	\$5,676 61	\$23,352 21	\$39,830 19	\$18,893 91	\$601,483 18	\$38,803 43	\$562,679 75

SUFFOLK COUNTY — CONTINUED.

Boston, . . .	\$2,854,107 67	\$508 75	\$380,733 14	\$67,615 76	\$32,837 50	\$95,862 15	\$85,482 93	\$3,517,147 90	\$58,381 81	\$3,458,766 09
Chelsea, . . .	127,610 75	45 00 ¹	22,019 04	2,325 00	3,400 00	9,958 25	3,521 15	168,879 19	265 44	168,613 75
Revere, . . .	52,387 38	9 00	11,348 33	941 68	2,116 66	7,155 90	4,934 97	78,893 92	55 50	78,838 42
Winthrop, . . .	30,030 10	225 00	5,193 05	125 00	2,040 00	2,779 70	2,950 19	43,343 04	-	43,343 04
Totals, . . .	\$3,064,135 90	\$787 75	\$419,293 56	\$71,007 44	\$40,394 16	\$115,756 00	\$96,889 24	\$3,808,264 05	\$58,702 75	\$3,749,561 30

¹ Estimated.

PLYMOUTH COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.					Principal	Income.	
Abington,	-	\$1,426 96	-	\$1,426 96	-	\$1,426 96	\$25,227 10	-	-	-
Bridgewater,	-	900 00	\$453 76	1,353 76	-	1,353 76	22,618 41	\$6,300 00	\$312 12	\$809 74
Brockton,	\$60,105 95	7,413 77	11,605 58	79,125 30	-	79,125 30	307,330 87	-	-	2,276 04
Carver,	-	-	179 59	179 59	-	179 59	5,083 01	8,000 00	150 00	-
Duxbury,	-	180 00	230 35	410 35	-	410 35	5,897 75	-	-	345 67
East Bridgewater,	-	546 43	435 39	981 82	-	981 82	11,724 30	-	-	585 49
Halifax,	-	132 80	-	132 80	-	132 80	1,975 12	-	-	-
Hanover,	-	1,049 96	330 09	1,380 05	-	1,380 05	9,892 93	-	-	271 36
Hanson,	-	1,015 80	144 19	1,159 99	-	1,159 99	6,308 65	-	-	-
Hingham,	-	200 00	598 01	798 01	-	798 01	28,417 53	1,000 00	37 84	712 23
Hull,	3,123 86	-	1,206 27	4,330 13	-	4,330 13	15,566 96	-	-	-
Kingston,	-	-	176 96	176 96	-	176 96	9,216 95	-	-	212 81
Lakeville,	-	-	-	-	-	-	2,412 09	-	-	-
Marion,	-	-	613 11	613 11	-	613 11	5,248 04	-	-	202 18
Marshfield,	-	-	235 09	235 09	-	235 09	7,132 34	-	-	417 97
Mattapoisett,	-	146 21	335 69	481 90	-	481 90	5,838 57	9,358 50	-	-
Middleborough,	32,650 95	300 00	1,025 80	33,976 75	-	33,976 75	63,443 86	-	-	-
Norwell,	-	221 10	37 10	258 20	-	258 20	6,187 14	-	-	346 76
Pembroke,	1,381 33	179 90	389 21	1,950 44	-	1,950 44	5,273 80	-	-	117 08
Plymouth,	-	-	2,563 07	2,563 07	-	2,563 07	49,483 68	365 00	18 25	-

Plympton,	-	4 17	40 17	-	40 17	842 70	-	-	97 38
Rochester,	2,282 12	186 83	2,468 95	\$1,591 90	877 05	3,687 05	395 06	267 99	
Rockland,	-	638 42	1,638 42	-	1,638 42	27,654 62	-	-	
Scituate,	-	513 73	594 43	-	594 43	17,915 37	-	325 75	
Wareham,	-	268 80	1,228 27	-	1,228 27	17,626 14	-	-	
West Bridgewater,	-	291 49	866 76	-	866 76	7,175 29	-	-	
Whitman,	-	245 29	245 29	-	245 29	30,524 15	-	909 42	
Totals,	\$99,544 21	\$22,707 99	\$138,616 57	\$1,591 90	\$137,024 67	\$699,704 42	\$32,023 50	\$913 26	\$7,897 87

SUFFOLK COUNTY — CONTINUED.

Boston,	\$841,905 04	\$350,300 00	\$1,192,205 04	-	\$1,192,205 04	\$4,650,971 13	\$128,075 00	\$4,945 78	\$50,573 38
Chelsea,	54,252 09	-	67,222 33	-	67,222 33	235,835 08	-	-	-
Revere,	76,187 86	7,672 37	84,790 76	-	84,790 76	163,629 18	-	-	1,330 00
Winthrop,	74,817 32	3,411 60	79,536 10	-	79,536 10	122,879 14	-	-	659 55
Totals,	\$1,047,162 31	\$361,383 97	\$1,423,754 23	-	\$1,423,754 23	\$5,173,315 43	\$128,075 00	\$4,945 78	\$52,562 93

SCHOOL RETURNS.

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[illegible]

SUFFOLK COUNTY — CONCLUDED.

Boston,	88	23,123	\$36,385 45	\$434,925 14	\$4,079,347 98	\$123,980 66
Chelsea, .	.	.	.	.	2	1,365	-	-	-	-
Revere, .	.	.	.	.	-	-	-	-	-	-
Winthrop, .	.	.	.	.	-	-	-	-	-	-
Totals, .	.	.	.	.	90	24,488	\$36,385 45	\$434,925 14	\$4,079,347 98	\$123,980 66

WORCESTER COUNTY.

TOWNS AND CITIES.	Population — State Census of 1906.	Valuation — May 1, 1907.	No. of public schools.	SCHOOL CENSUS DATA SEPT. 1, 1907.		SCHOOL MEMBERSHIP, ATTENDANCE AND GRADUATION DATA FOR THE SCHOOL YEAR.							
				No. of persons in towns be- tween 5 and 15 years of age.	No. of persons in towns be- tween 7 and 14 years of age.	No. of different pupils of all ages in the public schools during the school year.	No. of different pupils with- in the year under 5 years of age.	No. of different pupils with- in the year over 15 years of age.	No. of different pupils with- in the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average mem- bership.	No. graduated from gram- mar schools.
Ashburnham,	1,851	\$941,529	11	362	273	395	4	74	271	325	291	.90	14
Athol, .	7,197	4,231,198	25	1,262	924	1,297	-	172	882	1,166	1,088	.93	60
Auburn,	2,006	1,073,500	10	472	366	368	1	3	293	323	283	.88	12
Barre, .	2,558	1,629,165	13	431	300	430	2	58	206	382	345	.90	22
Berlin, .	906	546,880	5	182	147	186	-	4	147	153	139	.91	9
Blackstone,	5,786	2,254,020	26	1,196	926	1,264	13	40	845	1,061	981	.92	37
Bolton,	762	491,214	4	105	79	116	-	14	77	102	92	.90	7
Boylston,	649	478,651	4	126	92	120	-	2	93	108	98	.91	3
Brookfield,	2,388	1,265,651	16	359	276	439	3	46	268	367	345	.94	23
Charlton,	2,089	1,264,645	15	390	263	466	12	29	339	367	326	.89	11
Clinton,	13,105	7,945,672	46	2,416	1,952	1,973	20	165	1,398	1,895	1,782	.94	90
Dana, .	763	355,899	5	118	91	134	1	4	102	116	105	.90	8
Douglas,	2,120	1,219,735	10	347	246	354	-	16	286	299	267	.89	13
Dudley,	3,818	1,557,296	15	809	559	478	15	19	299	373	333	.89	12
Fitchburg,	33,021	26,474,438	116	6,785	4,705	4,400	22	455	2,902	4,018	3,799	.94	218
Gardner,	12,012	6,996,920	38	2,217	1,787	1,774	3	235	1,114	1,598	1,465	.92	104
Grafton,	5,052	2,670,337	22	883	628	867	-	73	666	817	773	.94	47
Hardwick,	3,261	1,691,750	14	587	446	407	-	35	356	367	337	.92	25
Harvard,	1,077	1,300,889	6	167	116	140	1	3	128	125	116	.93	9
Holden,	2,640	1,435,508	16	421	333	494	1	39	349	443	398	.89	24
Hopedale,	2,048	5,165,615	12	357	244	423	13	45	242	369	339	.92	22
Hubbardston,	1,205	656,120	9	195	128	202	-	8	160	179	162	.90	11
Lancaster,	2,406	3,464,969	12	374	266	384	-	40	263	321	295	.92	23
Leicester,	3,414	2,282,556	20	710	513	804	5	58	633	662	604	.91	27

SCHOOL RETURNS.

Leominster, .	14,297	10,149,355	50	2,778	1,986	2,381	17	255	1,553	2,095	1,965	.92	127
Lunenburg, .	1,293	1,026,856	8	220	155	220	-	16	154	190	172	.90	12
Mendon, .	922	640,330	6	143	99	166	-	13	113	153	141	.92	8
Milford, .	12,105	6,675,290	44	2,100	1,454	1,901	11	159	1,225	1,701	1,621	.95	43
Millbury, .	4,631	2,303,850	19	843	693	858	-	45	642	758	695	.92	42
New Braintree, .	477	394,590	4	100	81	92	-	-	79	75	65	.87	-
Northborough, .	1,947	1,337,291	9	337	273	357	-	43	250	327	298	.91	19
Northbridge, .	7,400	3,989,228	34	1,554	1,198	1,628	-	108	1,120	1,424	1,351	.95	38
North Brookfield, .	2,617	1,650,940	10	509	330	431	1	63	291	396	372	.94	13
Oakham, .	519	344,014	5	96	69	105	2	7	69	88	83	.93	7
Oxford, .	2,927	1,838,665	17	576	466	622	11	21	458	517	479	.93	32
Paxton, .	444	350,304	3	87	66	87	1	4	64	86	74	.85	4
Petersham, .	855	757,456	6	130	108	174	-	37	117	135	123	.91	10
Phillipston, .	442	258,934	4	76	63	85	1	2	64	64	57	.89	5
Princeton, .	907	1,034,385	9	145	100	154	-	18	104	139	128	.92	7
Royalston, .	903	499,819	7	143	118	147	4	4	118	141	130	.92	8
Rutland, .	1,713	712,496	6	237	199	251	1	20	195	218	196	.90	9
Shrewsbury, .	1,866	1,460,329	12	293	273	344	3	34	238	310	280	.90	18
Southborough, .	1,931	1,709,822	9	294	210	353	4	36	218	323	296	.92	16
Southbridge, .	11,000	5,300,888	30	2,155	1,581	1,272	6	131	715	1,057	978	.93	35
Spencer, .	7,121	3,597,715	28	1,208	881	1,000	10	89	659	908	843	.93	49
Sterling, .	1,315	974,245	8	200	145	239	1	21	166	205	184	.90	8
Sturbridge, .	1,974	987,458	12	348	287	346	3	3	273	287	255	.89	14
Sutton, .	3,173	1,212,363	16	672	510	496	9	79	476	408	350	.86	16
Templeton, .	3,783	1,553,352	16	720	559	673	6	56	441	587	536	.91	23
Upton, .	2,024	1,075,620	9	313	231	365	-	49	236	329	303	.92	28
Uxbridge, .	3,881	2,695,030	23	799	567	910	3	55	599	716	617	.86	28
Warren, .	4,300	1,848,048	16	707	487	662	11	79	417	560	525	.94	30
Webster, .	10,018	6,410,054	23	2,010	1,485	804	5	66	565	734	685	.93	22
Westborough, .	5,378	3,174,734	15	675	498	772	5	105	491	646	596	.92	30
West Boylston, .	1,571	733,732	7	202	160	205	-	24	136	199	187	.94	6
West Brookfield, .	1,384	984,630	7	187	132	191	2	2	99	147	139	.95	6
Westminster, .	1,348	737,115	12	245	211	258	-	23	179	240	221	.92	-
Winchendon, .	5,933	3,422,140	26	1,133	707	1,148	2	98	796	1,010	930	.92	55
Worcester, .	128,135	124,747,588	465	22,680	16,366	23,237	946	1,907	14,776	20,305	18,273	.90	671
Totals, .	362,668	\$273,982,823	1,445	66,186	48,358	60,849	1,181	5,309	40,415	53,414	48,911	.92	2,270

WORCESTER COUNTY — CONTINUED.

TOWNS AND CITIES.	TEACHERS AND TEACHERS' WAGES.				LENGTH OF SCHOOLING.		HIGH SCHOOLS.									
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.		No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Average number of months public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	No. of new pupils admitted during the year.	No. of graduates.	Length of schooling.	Expenditures for high school support.
	Men.	Women.	In high schools.	In elementary schools.												
Ashburnham,	1	9	9	-	6	\$60 00	\$40 89	97	8-16	1	16	52	14	5	9-10	\$1,626 15
Athol,	3	29	29	1	10	125 50	46 80	239-11	9-11	1	6	189	74	41	9-15	5,957 41
Auburn,	-	10	10	-	-	-	43 40	90	9	-	-	-	-	-	-	-
Barre,	1	15	15	1	11	120 00	40 32	117	9	1	4	54	24	7	9-17	3,687 00
Berlin,	-	7	7	-	1	-	39 33	44	8-16	-	-	-	-	-	-	-
Blackstone,	1	32	32	-	-	100 00	42 56	253-10	9-14	1	3	67	24	7	10	2,600 00
Bolton,	-	5	5	-	2	-	44 60	36-16	9-4	1	2	26	7	4	9-17	1,644 44
Boylston,	-	4	4	-	2	-	48 00	37-3	9-6	-	-	-	-	-	-	-
Brookfield,	1	16	16	-	10	110 00	43 13	155	9-13	1	2	51	22	10	10	2,244 16
Charlton,	1	16	16	-	2	90 00	34 94	126-4	8-12	1	2	42	9	-	9-16	1,639 57
Clinton,	4	53	53	-	12	125 00	61 97	428-11	9-6	1	8	195	68	42	9-4	8,550 00
Dana,	-	5	5	-	4	-	40 40	44-8	8-17	-	-	-	-	-	-	-
Douglas,	1	10	10	1	3	100 00	40 22	88-10	8-17	1	1	19	13	5	9-15	1,040 00
Dudley,	3	17	17	-	6	140 00	39 42	132-14	8-16	1	4	23	11	6	9-18	1,421 49
Fitchburg,	16	110	110	2	51	123 25	63 00	1,102	9-10	1	23	610	232	73	9-10	28,500 00
Gardner,	2	51	51	-	31	142 50	58 78	343-15	9	1	12	326	76	46	9-16	15,154 00
Grafton,	1	24	24	-	12	131 58	46 52	187-7	8-10	1	4	117	51	23	9-6	5,529 28
Hardwick,	2	15	15	2	13	87 00	41 30	126-11	9-2	1	4	55	23	11	9-18	4,152 61
Harvard,	-	5	5	-	5	-	45 60	46-15	9-7	1	3	37	8	4	8-15	3,000 00
Holden,	1	17	17	-	10	107 68	52 56	133-11	8-7	1	3	69	15	8	9-11	2,384 64
Hopedale,	1	12	12	-	6	120 00	63 40	110-10	9-4	1	2	42	17	5	10	2,802 54
Hubbardston,	1	8	8	-	4	61 00	36 00	79	8-16	1	1	10	4	4	9-5	692 00
Lancaster,	1	14	14	-	8	130 00	50 70	110-15	9-5	1	3	49	17	3	9-15	2,028 53
Leicester,	2	21	21	1	13	105 00	43 19	181-1	9-1	1	4	63	19	13	9-16	3,512 26

SCHOOL RETURNS.

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Leominster,	7	60	10	-	30	136 25	55 03	460	9-14	1	11	283	101	45	9-17	14,874 00
Lunenburg,	1	8	2	-	6	78 00	39 00	69-14	8-14	1	2	37	14	5	9-17	1,452 95
Mendon,	1	6	2	-	2	67 50	41 00	55	9-3	1	2	28	8	3	10	1,623 59
Milford,	2	48	5	-	26	125 00	49 60	384-18	8-14	1	6	146	49	23	9-18	7,558 00
Millbury,	2	22	3	-	19	105 00	41 59	167-8	8-16	1	3	97	39	13	9-18	3,075 42
New Braintree,	-	4	-	-	-	-	39 33	36-15	9-4	-	-	-	-	-	-	-
Northborough,	1	12	2	-	11	110 00	40 73	79-10	8-14	1	2	39	15	8	9-15	1,880 08
Northbridge,	1	39	4	1	27	153 00	49 00	323-10	9-10	1	5	117	36	20	10	4,800 00
North Brookfield,	1	11	3	-	1	110 00	42 54	91-7	9-2	1	3	76	12	12	8-16	2,732 68
Oakham,	-	5	-	-	-	-	40 00	40	8	-	-	-	-	-	-	-
Oxford,	1	17	2	1	13	100 00	38 12	153-2	9	1	2	33	28	3	10	1,875 00
Paxton,	-	3	-	-	3	-	32 00	28	9-6	-	-	-	-	-	-	-
Peterham,	1	7	2	1	4	100 00	44 72	55-16	9-6	1	3	37	14	-	10	2,665 00
Phillipston,	-	4	-	-	2	-	43 00	36-17	9-4	-	-	-	-	-	-	-
Princeton,	1	9	2	-	8	80 00	35 00	76-1	8-9	1	2	18	7	4	9-10	1,828 00
Royalston,	1	6	-	-	1	56 00	44 00	61-6	8-15	-	-	-	-	-	-	-
Rutland,	1	6	2	-	5	68 00	41 33	51-13	8-12	1	2	30	9	5	9-15	1,418 84
Shrewsbury,	2	18	3	-	12	81 00	39 63	100-9	8-7	1	2	31	11	2	9-12	1,689 99
Southborough,	1	13	4	1	9	100 00	44 46	80-4	8-18	1	3	38	14	7	9-15	3,229 88
Southbridge,	2	36	5	-	8	102 50	45 73	294	9-6	1	5	127	37	23	9-15	5,207 43
Spencer,	3	28	3	-	6	102 72	49 86	255-9	9-2	1	4	102	41	14	9-15	5,092 00
Sterling,	1	9	1	-	5	80 00	35 33	71-5	8-18	1	2	55	10	6	9-16	1,600 00
Sturbridge,	-	13	-	-	-	-	38 15	110	9	-	-	-	-	-	-	-
Sutton,	-	17	2	3	1	-	35 58	145	9-1	1	1	24	74	6	10	1,008 00
Templeton,	1	18	2	-	2	100 00	37 18	136-12	8-11	1	3	65	25	13	9-15	2,559 12
Upton,	1	10	3	-	7	106 31	40 04	77-19	8-10	1	3	77	27	9	9-1	2,414 58
Uxbridge,	2	23	2	1	12	100 00	41 00	200-7	8-14	1	2	47	17	5	9-16	3,366 25
Warren,	3	16	4	2	8	86 41	42 28	141-2	8-16	1	4	84	35	12	9-14	3,825 00
Webster,	2	28	5	2	14	105 00	48 66	227-3	9-17	1	5	74	24	13	9-18	6,228 00
Westborough,	2	17	4	-	7	95 00	56 73	128-9	8-11	1	4	100	34	14	9-12	4,349 58
West Boylston,	1	7	2	-	4	130 00	47 11	63-8	9-1	1	2	28	6	5	9-17	2,374 62
West Brookfield,	-	7	-	-	5	-	42 22	61-17	8-14	-	-	-	-	-	-	-
Westminster,	-	12	-	-	7	-	34 66	97	8-1	1	1	23	-	7	9	625 00
Winchendon,	2	30	5	1	24	112 44	47 34	229	8-16	1	6	140	34	16	9-15	7,532 03
Worcester,	66	560	68	18	469	152 92	65 18	4,650	10	3	86	2,341	669	247	10 10 10	121,336 42
Totals,	153	1,634	232	39	980	\$129 23	\$54 00	13,551-13	9-8	50	283	6,393	2,118	857	9-14	\$316,387 54

1 Bromfield School.

WORCESTER COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR THE SUPPORT OF PUBLIC SCHOOLS.							Total expenditure for the support of public schools, being the total of the seven preceding columns.	Amount included in the total expenditure as given in the preceding column, but derived from other sources than local taxation, such as aid from the State, voluntary contributions, income from local funds, etc.	Amount raised by local taxation and expended for the support of public schools, being the total expenditure for such support diminished by contributions from other sources than local taxation.
	Teachers' wages.	Conveyance of pupils.	Fuel and care of school premises.	School committee, including clerical aid and transient service.	Superintendent and assistants.	Text-books and school supplies.	School sundries.			
Ashburnham,	\$5,350 00	\$338 00	\$999 76	\$113 50	\$600 00	\$449 47	\$143 04	\$7,993 77	\$1,595 30	\$6,398 47
Athol,	17,233 08	1,715 45	4,055 51	29 60	2,000 00	2,522 46	3,084 95	30,641 05	1,163 30	29,477 75
Auburn,	5,376 95	107 28	616 12	149 00	540 00	365 30	107 99	7,262 64	2,018 66	5,243 98
Barre,	7,355 00	1,129 17	1,823 89	-	600 00	871 11	337 60	12,116 77	1,973 00	10,143 77
Berlin,	3,558 80	261 25	718 18	73 00	257 76	239 99	144 63	5,253 61	2,648 19	2,605 42
Blackstone,	14,652 86	-	2,000 00	60 00	888 00	692 00	53 04	18,345 90	2,688 49	15,657 41
Bolton,	2,269 57	1,455 00	290 45	44 00	342 86	288 98	87 80	4,778 66	2,612 68	2,165 98
Boylston,	2,264 00	2,026 30	601 12	83 00	285 72	155 02	75 03	5,490 19	2,130 15	3,360 04
Brookfield,	7,552 84	75 00	1,623 78	180 00	750 00	506 12	182 17	10,869 91	1,824 99	9,044 92
Charlton,	5,681 91	84 40	662 83	132 80	750 00	646 75	160 06	8,118 75	2,300 10	5,818 65
Clinton,	32,946 55	-	6,879 27	1,400 00	2,000 00	4,114 15	2,064 78	49,404 75	-	49,404 75
Dana,	2,245 15	806 30	598 81	90 00	417 81	275 04	31 86	4,464 97	2,258 12	2,206 85
Douglas,	4,752 00	450 00	1,415 87	85 00	660 00	456 65	346 36	8,165 88	1,585 45	6,580 43
Dudley,	7,881 50	-	1,656 29	83 00	686 13	447 17	461 01	11,215 10	1,553 86	9,661 24
Fitchburg,	90,983 93	2,204 25	19,136 25	1,737 50	2,700 00	3,358 11	4,228 83	124,348 87	833 50	123,515 37
Gardner,	29,658 68	1,033 30	6,525 04	-	2,100 00	3,745 20	1,918 41	44,980 63	278 25	44,702 38
Grafton,	11,850 06	3,448 42	3,603 23	252 09	1,418 75	1,432 63	405 68	22,410 86	1,986 17	20,424 69
Hardwick,	7,840 00	2,364 02	1,728 41	90 00	610 68	1,102 50	197 09	13,932 70	1,679 71	12,252 99
Harvard,	2,145 25	3,161 15	588 01	7 00	514 20	184 86	154 62	6,755 09	1,701 94	5,053 15
Holden,	7,412 49	384 02	856 44	90 00	800 00	333 96	155 79	10,032 70	2,409 70	7,623 00
Hopedale,	8,699 50	273 50	2,623 51	-	673 34	603 11	674 07	13,547 03	38 50	13,508 53
Hubbardston,	3,422 00	798 00	142 00	90 00	310 00	273 00	8 00	5,043 00	1,552 00	3,491 00
Lancaster, ¹	7,381 25	1,146 50	2,218 46	100 00	990 00	721 84	313 32	12,871 37	-	12,871 37
Leicester,	11,114 60	1,171 60	3,060 15	104 82	750 00	1,113 65	651 99	17,966 81	3,573 41	14,393 40

SCHOOL RETURNS.

Leominster,	38,743 00	2,234 13	12,414 06	1,161 80	2,200 00	6,490 61	902 46	64,146 06	1,430 36	62,715 70
Lunenburg,	4,021 86	306 00	580 07	135 54	510 00	351 63	49 00	5,954 10	1,870 63	4,083 47
Mendon,	3,030 00	618 00	899 54	-	676 33	261 84	57 99	5,543 70	2,163 65	3,380 05
Millford,	25,658 80	639 00	6,010 74	50 00	1,800 00	1,839 61	2,469 12	38,467 27	127 10	38,340 17
Millbury,	11,042 60	333 25	2,511 73	161 00	760 00	1,319 14	729 67	16,857 39	2,317 41	14,539 98
New Braintree,	1,716 40	368 75	253 25	13 75	465 00	187 00	51 48	3,055 63	1,508 00	1,547 63
Northborough,	5,514 90	1,169 05	1,220 08	108 10	514 08	567 90	166 10	9,280 21	2,009 30	7,250 91
Northbridge,	20,364 70	751 30	6,847 13	5 75	750 00	1,853 90	1,218 13	31,790 91	57 00	31,733 91
North Brookfield,	6,135 10	1,721 63	854 73	50 00	750 00	508 21	288 38	10,308 05	1,778 99	8,529 06
Oakham,	1,799 00	42 40	212 92	55 25	240 00	100 80	2 00	2,452 37	1,537 99	914 38
Oxford,	8,426 24	144 00	2,431 61	177 15	593 21	1,025 53	957 93	13,755 67	2,190 76	11,564 91
Paxton,	1,516 00	642 40	426 03	47 40	165 43	99 35	30 41	2,927 02	1,727 02	1,200 00
Petersham,	3,820 00	1,755 52	1,115 10	70 00	289 29	452 33	418 53	7,920 77	2,001 28	5,919 49
Phillipston,	1,694 70	355 00	137 60	49 00	154 81	83 65	-	2,474 76	1,312 58	1,162 18
Princeton,	3,926 48	360 80	887 56	75 00	300 00	306 99	38 70	5,895 53	1,157 48	4,738 05
Royalston,	3,193 00	1,071 00	512 07	107 50	310 02	229 38	-	5,422 97	1,934 22	3,488 75
Rutland,	2,850 75	1,383 40	852 40	40 00	400 00	263 20	61 73	5,851 48	2,004 99	3,846 49
Shrewsbury,	5,585 15	790 52	879 64	163 00	514 08	548 60	289 80	8,770 79	1,704 49	7,066 30
Southborough,	6,254 60	1,511 00	1,800 93	151 44	514 08	782 36	407 75	11,422 16	1,894 30	9,527 86
Southbridge,	18,926 93	376 45	4,194 84	136 78	900 00	1,953 23	1,216 52	27,704 75	645 00	27,059 75
Spencer,	16,608 08	804 72	4,143 87	55 09	1,600 00	1,393 78	566 61	25,172 15	539 06	24,633 09
Sterling,	4,152 00	734 55	425 93	88 05	600 00	279 15	102 86	6,382 54	2,383 81	3,988 73
Sturbridge,	5,367 45	1,397 12	899 59	50 80	620 00	357 53	22 00	8,714 49	1,974 99	6,739 50
Sutton,	5,604 75	393 00	1,251 78	173 67	960 00	527 26	296 81	9,207 27	2,240 20	6,967 07
Templeton,	7,013 87	1,363 75	1,924 53	198 62	779 19	813 25	25 00	12,118 21	2,299 03	9,819 18
Upton,	4,693 69	1,056 50	1,359 09	18 50	464 55	528 80	67 09	8,188 22	1,611 99	6,576 23
Uxbridge,	11,825 15	16 25	2,978 94	15 00	990 00	2,288 46	539 56	18,653 36	1,837 68	16,815 68
Warren,	9,622 71	2,264 25	2,246 02	64 00	1,246 64	1,102 38	320 93	16,866 93	2,870 74	13,996 19
Webster,	16,418 99	-	2,486 96	200 00	1,359 99	1,371 53	809 93	22,647 40	-	22,647 40
Westborough,	10,805 89	2,167 81	2,601 74	50 00	600 00	760 43	1,223 93	18,209 80	71 00	18,138 80
West Boylston,	4,984 85	1,989 75	1,059 63	266 50	825 00	456 61	178 88	9,761 22	2,609 00	7,152 22
West Brookfield,	3,667 65	712 25	524 15	-	465 00	380 47	271 26	6,020 78	2,135 86	3,884 92
Westminster,	3,456 00	591 00	453 28	87 04	600 00	246 02	59 65	5,492 99	1,497 49	3,995 50
Winchendon,	16,944 57	1,334 93	5,052 72	167 98	1,266 57	2,559 07	1,874 76	29,200 60	8,415 71	20,784 89
Worcester,	490,815 15	845 50	90,055 87	9,255 27	4,499 98	29,137 40	12,304 72	636,913 89	4,516 15	632,397 74
Totals,	\$1,085,828 98	\$56,677 89	\$226,929 51	\$18,443 29	\$51,328 50	\$86,326 47	\$44,007 81	\$1,569,542 45	\$106,780 73	\$1,462,761 72

1 These figures cover only eleven months.

WORCESTER COUNTY — CONTINUED.

TOWNS AND CITIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.					Principal.	Income.	
Ashburnham,	-	\$400 00	\$66 20	\$466 20	\$400 00	\$66 20	\$6,464 67	-	-	-
Athol,	-	150 00	494 31	644 31	-	644 31	30,122 06	\$1,000 00	-	\$309 19
Auburn,	\$5,500 00	835 20	342 58	6,677 78	-	6,677 78	11,921 76	-	-	349 77
Barre,	-	-	91 68	91 68	-	91 68	10,235 45	-	-	-
Berlin,	-	-	127 99	127 99	-	127 99	2,733 41	1,500 00	\$60 30	-
Blackstone,	-	-	1,034 75	1,034 75	-	1,034 75	16,692 16	-	-	-
Bolton,	-	-	25 03	25 03	-	25 03	2,191 01	12,000 00	534 91	-
Boylston,	-	250 00	69 32	319 32	-	319 32	3,679 36	-	-	-
Brookfield,	-	1,196 00	151 41	1,347 41	-	1,347 41	10,392 33	-	-	335 89
Charlton,	-	-	333 49	333 49	-	333 49	6,152 14	3,167 00	126 68	372 57
Clinton,	-	-	1,392 08	1,392 08	-	1,392 08	50,796 83	5,000 00	175 00	325 00
Dana,	-	1,398 66	-	1,398 66	-	1,398 66	3,605 51	-	-	139 38
Douglas,	-	-	153 92	153 92	-	153 92	6,734 35	941 33	56 48	-
Dudley,	-	-	320 32	320 32	-	320 32	9,981 56	-	-	372 20
Fitchburg,	18,992 31	-	3,924 14	22,916 45	-	22,916 45	146,431 82	-	-	-
Gardner,	-	-	3,313 81	3,313 81	-	3,313 81	48,016 19	-	-	-
Grafton,	-	760 77	334 55	1,095 32	-	1,095 32	21,520 01	-	-	-
Hardwick,	-	755 92	610 41	1,366 33	-	1,366 33	13,619 32	-	-	1,711 22
Harvard,	-	-	49 27	49 27	-	49 27	5,102 42	-	-	204 20
Holden,	-	-	429 51	429 51	-	429 51	8,052 51	3,666 66	202 00	555 56
Hopedale,	-	143 04	808 14	951 18	-	951 18	14,459 71	-	-	-
Hubbardston,	-	-	262 00	262 00	-	262 00	3,753 00	3,491 00	1,200 00	72 00
Lancaster,	-	2,426 88	272 72	2,699 60	-	2,699 60	15,570 97	-	-	-
Leicester,	-	-	379 44	379 44	127 15	252 29	14,645 69	-	-	715 31

SCHOOL RETURNS.

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	5,327 08	1,922 64	7,249 72	-	7,249 72	69,965 42	13,000 00	570 00	
Leominster,	-	418 25	418 25	-	418 25	4,501 72	-	-	-
Lunenburg,	-	163 32	163 32	-	163 32	3,543 37	-	-	181 56
Mendon,	-	1,659 72	1,659 72	-	1,659 72	39,999 89	-	-	-
Milford,	552 11	684 50	1,236 61	-	1,236 61	15,776 59	-	-	-
Millbury,	-	95 00	95 00	-	95 00	1,642 63	-	-	-
New Braintree,	-	649 09	649 09	-	649 09	7,900 00	5,400 00	270 00	-
Northborough,	-	1,587 63	2,629 48	-	2,629 48	34,363 39	-	-	647 74
Northbridge,	1,041 85	222 18	222 18	-	222 18	8,751 24	-	-	378 07
North Brookfield,	-	10 16	10 16	-	10 16	924 54	-	-	2 02
Oakham,	-	567 03	29,909 86	-	29,909 86	41,474 77	-	-	-
Oxford,	29,342 83	-	-	-	-	1,200 00	-	-	-
Paxton,	-	69 68	343 48	-	343 48	6,262 97	781 68	31 50	182 63
Petersham,	273 80	62 42	62 42	-	62 42	1,224 60	-	-	91 85
Phillipston,	-	214 88	480 92	-	480 92	5,218 97	-	-	-
Princeton,	266 04	127 62	127 62	-	127 62	3,616 37	6,500 00	304 27	145 78
Royalston,	-	49 00	192 93	-	192 93	4,039 42	-	-	100 00
Rutland,	143 93	131 35	341 49	-	341 49	7,407 79	1,000 00	35 15	-
Shrewsbury,	210 14	80 51	80 51	-	80 51	9,608 37	-	-	190 94
Southborough,	-	667 33	702 33	-	702 33	27,762 08	-	-	-
Southbridge,	35 00	2,433 29	2,433 29	-	2,422 43	27,055 52	-	-	772 17
Spencer,	-	272 97	272 97	10 86	272 97	4,271 70	15,043 17	601 68	143 65
Sterling,	-	47 73	47 73	-	47 73	6,787 23	-	-	843 32
Sturbridge,	-	132 88	304 65	-	304 65	7,271 72	2,000 00	114 00	417 59
Sutton,	171 77	672 95	672 95	-	672 95	10,492 13	-	-	486 48
Templeton,	-	286 80	286 80	-	286 80	6,863 03	-	-	363 12
Upton,	-	1,456 62	1,913 79	-	1,913 79	18,729 47	39,700 00	688 35	-
Uxbridge,	457 17	586 09	586 09	-	586 09	14,582 28	-	-	-
Warren,	-	169 05	2,224 64	-	2,224 64	24,872 04	-	-	844 72
Webster,	2,055 59	919 26	23,960 43	-	23,960 43	42,099 23	-	-	-
Westborough,	1,208 64	138 16	443 24	-	443 24	7,595 46	-	-	7,104 00
West Boylston,	305 08	100 45	307 59	-	307 59	4,192 51	-	-	-
West Brookfield,	207 14	151 57	251 57	-	251 57	4,247 07	-	-	-
Westminster,	100 00	947 58	947 58	-	734 76	21,519 65	275,000 00	7,342 54	-
Winchendon,	-	26,611 79	134,756 69	212 82	133,989 29	766,387 03	2,518 04	97 89	-
Worcester,	67,810 87	-	-	767 40	-	-	-	-	-
Totals,	\$143,478 54	\$59,296 57	\$263,780 95	\$1,518 23	\$262,262 72	\$1,725,024 44	\$391,708 88	\$12,460 75	\$18,357 93

BOARD OF EDUCATION.

WORCESTER COUNTY — CONCLUDED.

TOWNS AND CITIES.	Town's share of school fund income paid for 1878	PRIVATE SCHOOLS.		PERCENT OF TOTAL OF TOTAL	FUNDS WHOSE INCOME MUST BE APPROPRIATED TO ACADEMIC OR PRIVATE SCHOOLS.	
		No. of private schools.	No. of different private school pupils attending		Principal	Income.
Ashburnham.	\$99	1		—	\$352,000 00	\$12,137 00
Athol, .	1,07	1		—	—	—
Auburn, .	1,07	1		—	—	—
Barre, .	1,22	1		—	—	—
Berlin, .	1,00	1		—	—	—
Blackstone,	1,19	1		—	—	—
Bolton, .	1,42	1		—	—	—
Boyleston,	1,07	1		—	—	—
Brookfield,	1,07	1		—	—	—
Charlton,	1,42	1		—	—	—
Clinton, .	84	1		—	—	—
Dana, .	1,07	1		—	—	—
Douglas,	1,00	1		—	—	—
Dudley, .	1,07	1		—	—	—
Fitchburg,	1,07	1		—	—	—
Gardner,	1,07	1		—	—	—
Grafton, .	1,07	1		—	—	—
Hardwick,	1,07	1		—	—	—
Harvard,	1,07	1		—	—	—
Holden, .	1,07	1		—	—	—
Hopedale,	99	1		—	—	—
Hubbardston,	77	1		—	—	—
Lancaster,		1		—	—	—
Leicester,		1		—	—	—

SCHOOL RETURNS.

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[illegible]

RECAPITULATION.

COUNTIES.	SCHOOL CENSUS DATA SEPT. 1, 1907.		Valuation — May 1, 1907.	No. of public schools.	SCHOOL MEMBERSHIP, ATTENDANCE AND GRADUATION DATA FOR THE SCHOOL YEAR.							
	No. of persons in towns be- tween 5 and 15 years of age.	No. of persons in towns be- tween 7 and 14 years of age.			No. of different pupils of all ages in the public schools during the school year.	No. of different pupils with- in the year under 5 years of age.	No. of different pupils with- in the year over 15 years of age.	No. of different pupils with- in the year between 7 and 14 years of age.	Average membership of all the schools.	Average attendance of all the schools.	Percentage of attendance based on average mem- bership.	No. graduated from gram- mar schools.
Barnstable,	4,238	3,202	\$28,060,287	149	4,873	41	631	3,303	4,460	4,095	.92	299
Berkshire,	17,997	13,337	72,534,791	487	17,334	467	1,450	11,575	15,091	13,848	.92	617
Bristol,	52,199	37,810	220,435,612	957	43,348	529	2,769	30,248	37,715	34,761	.92	1,163
Dukes,	792	606	5,234,485	25	850	-	102	558	725	669	.92	40
Essex,	67,772	49,379	346,871,602	1,397	61,325	849	6,043	40,123	54,916	51,131	.93	2,704
Franklin,	7,280	5,349	27,585,650	265	7,662	47	649	5,411	6,899	6,398	.93	386
Hampden,	36,564	27,232	181,177,987	800	33,338	1,379	3,004	21,506	28,567	26,090	.91	1,193
Hampshire,	10,529	8,069	38,065,747	317	10,647	195	918	7,134	9,414	8,751	.93	456
Middlesex,	106,138	75,683	594,236,814	2,345	110,113	2,753	13,179	70,512	98,599	91,585	.93	4,496
Nantucket,	412	300	3,324,382	11	514	1	62	273	395	373	.94	27
Norfolk,	31,326	23,794	251,006,899	734	32,056	872	2,709	21,178	28,950	26,802	.93	1,888
Plymouth,	21,030	15,468	105,727,268	554	23,216	111	2,388	15,509	21,179	19,680	.93	1,161
Suffolk,	116,191	81,648	1,364,313,257	2,070	118,194	3,061	10,879	68,361	105,890	96,300	.91	5,613
Worcester,	66,186	48,358	273,982,823	1,445	60,849	1,181	5,309	40,415	53,414	48,911	.92	2,270
State,	538,654	390,235	\$3,512,557,604	11,556	524,319	11,486	50,092	336,106	466,214	429,394	.92	22,313

RECAPITULATION — CONTINUED.

SCHOOL RETURNS.

COUNTIES.	TEACHERS AND TEACHERS' WAGES.						LENGTH OF SCHOOLING.		HIGH SCHOOLS.							
	NUMBER OF TEACHERS REQUIRED BY THE PUBLIC SCHOOLS.		NUMBER OF TEACHERS WHO HAVE GRADUATED FROM COLLEGE.		No. of teachers who have graduated from normal schools.	Average wages per month of male teachers.	Average wages per month of female teachers.	Aggregate of months all the public schools have been kept during the school year.	Average number of months public schools have been kept during the year.	No. of high schools.	No. of teachers.	No. of pupils.	No. of new pupils admitted during the year.	No. of graduates.	Length of schooling.	Expenditures for high school support.
	Men.	Women.	In high schools.	In elementary schools.												
	Barnstable,	25	147	25	8	88	\$82 34	\$44 04	1,333-12	8-19	14	31	691	238	125	9-10	$34,913 48
Berkshire, .	41	566	56	9	233	107 90	48 42	4,475-14	9-4	10	59	1,406	531	198	9-12	64,551 75
Bristol, .	82	1,138	78	7	430	134 78	56 43	9,023-16	9-9	14	99	2,439	911	359	9-14	128,805 46
Dukes, .	4	26	7	1	10	75 57	43 72	223-1	8-18	4	7	112	31	14	9-5	4,526 75
Essex, .	123	1,643	204	38	700	140 32	57 63	13,175-13	9-6	28	257	6,436	2,282	821	9-13	318,612 22
Franklin, .	10	292	35	4	120	110 71	40 42	2,335-4	8-16	11	42	948	309	135	9-15	42,131 51
Hampden, .	81	920	120	43	619	142 39	58 48	7,608-5	9-10	11	136	3,127	1,127	441	9-13	181,841 85
Hampshire,	22	347	44	16	135	95 23	42 51	2,864-5	9-1	11	49	1,112	368	153	9-14	45,804 17
Middlesex, .	271	2,804	381	131	1,420	154 78	63 24	21,635-16	9-6	48	495	12,652	4,470	1,744	9-10	667,520 06
Nantucket,	1	17	1	-	4	100 00	33 50	107-4	9-15	1	4	74	26	11	10	3,300 00
Norfolk, .	89	856	133	23	441	138 25	59 20	6,787-13	9-5	27	157	3,807	1,452	568	9-12	198,345 93
Plymouth, .	61	606	82	13	354	121 39	52 83	5,084-6	9-4	20	120	2,776	1,028	377	9-12	137,890 58
Suffolk, .	318	2,501	189	115	1,914	215 15	72 35	19,658-19	9-10	17	334	9,554	3,879	1,930	9-5	717,986 51
Worcester,	153	1,634	232	39	980	129 23	54 00	13,551-13	9-8	50	283	6,393	2,118	857	9-14	316,387 54
State, .	1,281	13,497	1,587	447	7,448	\$155 95	\$59 58	107,865-1	9-8	266	2,073	51,527	18,770	7,733	9-12	\$2,862,617 81

RECAPITULATION — CONTINUED.

COUNTIES.	EXPENDITURES FOR SCHOOL BUILDINGS.			Total expenditure for school buildings, being the total of the three preceding columns.	Amount included in the total expenditure for school buildings as given in the preceding column, but derived from other sources than local taxation.	Amount raised by local taxation and expended for school buildings.	Amount raised by local taxation and expended for support of the public schools and for school buildings, that is, for all school purposes.	LOCAL FUNDS WHOSE INCOME MUST BE APPROPRIATED TO THE PUBLIC SCHOOLS.		Dog tax and other income voluntarily appropriated to the public schools.
	New schoolhouses.	Alterations and permanent repairs.	Ordinary repairs.					Principal.	Income.	
Barnstable,	\$9,666 06	\$1,282 34	\$6,286 31	\$17,234 71	—	\$17,234 71	\$130,667 67	\$26,894 68	\$1,319 32	\$1,438 90
Berkshire,	14,685 15	20,468 45	16,140 11	51,293 71	\$539 49	50,754 22	445,909 59	4,887 00	266 66	2,782 03
Bristol,	101,068 66	26,841 49	62,464 20	190,374 35	107 62	190,266 73	1,183,011 08	213,500 00	13,740 28	12,167 40
Dukes,	—	792 97	305 73	1,098 70	—	1,098 70	14,177 10	—	—	302 06
Essex,	276,463 94	58,868 43	81,528 96	416,861 33	290 00	416,571 33	1,949,246 04	197,443 17	9,285 56	8,339 30
Franklin,	11,325 84	9,578 94	5,862 59	26,767 37	695 98	26,071 39	184,174 47	59,370 92	2,852 35	1,338 90
Hampden,	170,662 85	63,100 08	32,911 11	266,674 04	—	266,674 04	1,189,798 90	37,525 30	1,889 73	5,277 93
Hampshire,	14,076 79	7,283 58	10,405 02	31,775 39	165 03	31,610 36	240,921 80	24,104 09	1,123 49	3,187 58
Middlesex,	430,885 07	69,790 84	137,451 10	638,127 01	40 00	638,087 01	3,647,990 86	119,042 63	5,181 93	11,993 21
Nantucket,	—	468 81	764 07	1,232 88	—	1,232 88	9,965 67	—	—	307 20
Norfolk,	291,413 24	22,161 08	36,489 51	350,063 83	—	350,063 83	1,272,949 91	53,942 70	2,336 99	6,383 28
Plymouth,	99,544 21	16,364 37	22,707 99	138,616 57	1,591 90	137,024 67	699,704 42	32,023 50	913 26	7,897 87
Suffolk,	1,047,162 31	361,383 97	15,207 95	1,423,754 23	—	1,423,754 23	5,173,315 53	128,075 00	4,945 78	52,562 93
Worcester,	143,478 54	61,005 84	59,296 57	263,780 95	1,518 23	262,262 72	1,725,024 44	391,708 88	12,460 75	18,357 93
State,	\$2,610,432 66	\$719,401 19	\$487,821 22	\$3,817,655 07	\$4,948 25	\$3,812,706 82	\$17,866,857 48	\$1,288,517 87	\$56,316 10	\$132,336 52

SCHOOL RETURNS.

BOARD OF EDUCATION.

RECAPITULATION — CONCLUDED.

COUNTIES.	Town's share of school fund income paid Jan. 25, 1908.	Amount of voluntary contributions expended on the public schools but not included in expenditures by the town or city.	ACADEMIES AND PRIVATE SCHOOLS.				ESTIMATED AMOUNT OF TUITION PAID IN —		FUNDS WHOSE INCOME MUST BE APPROPRIATED TO ACADEMIES OR PRIVATE SCHOOLS.	
			No. of academies.	No. of different academy pupils attending during the year.	No. of private schools.	No. of different private school pupils attending during the year.	Academies.	Private schools.	Principal.	Income.
Barnstable,	\$11,923 41	\$205 00	—	—	—	—	—	—	—	—
Berkshire,	25,789 84	51 00	—	—	9	2,702	—	\$9,400 00	\$35,000 00	—
Bristol, .	10,980 41	636 63	3	247	32	11,695	\$21,913 44	11,137 00	834,000 00	\$31,600 87
Dukes, .	5,343 47	—	—	—	—	—	—	—	—	—
Essex, .	12,343 38	1,841 70	5	796	47	15,217	79,710 61	61,756 00	897,801 89	20,618 21
Franklin,	25,412 84	813 59	3	1,430	2	195	95,272 42	—	1,827,173 44	33,713 92
Hampden,	17,202 86	1,284 44	2	295	28	8,907	5,726 50	19,550 00	463,772 79	11,572 26
Hampshire,	19,424 86	—	3	198	6	1,147	500 00	—	116,267 02	18,067 02
Middlesex,	26,831 29	2,613 96	11	1,063	78	15,280	280,190 00	119,430 00	342,397 00	9,921 18
Nantucket,	—	—	—	—	—	—	—	—	—	—
Norfolk, .	13,505 87	765 00	2	361	14	1,521	39,134 10	21,000 00	603,000 00	32,040 00
Plymouth,	14,487 90	1,906 25	4	197	6	1,106	2,366 00	12,370 00	452,288 94	17,684 47
Suffolk, .	—	1,144 20	4	610	90	24,488	36,385 45	434,925 14	4,079,347 98	123,960 66
Worcester,	45,875 09	5,171 68	5	875	32	9,464	120,673 00	38,700 00	759,710 42	20,137 00
State,	\$229,121 22	\$15,619 86	42	6,072	344	91,722	\$681,871 52	\$728,268 14	\$10,410,759 48	\$319,315 59

SCHOOL RETURNS.

xcvii

EVENING SCHOOLS.

CITIES AND TOWNS.	No. of schools.	ATTENDANCE.			Time. Average No. of evenings.	No. of teachers.	Expense.
		Males.	Females.	Average.			
Adams,	2	84	99	105	42	10	\$814 49
Attleborough,	3	258	95	167	35	14	1,286 75
Beverly,	12	320	121	290	40	16	2,543 67
Boston,	24	6,008	4,493	7,267	83	359	118,870 70
Brockton,	6	718	228	439	55	29	3,440 63
Brookline,	5	147	104	119	48	12	2,027 87
Cambridge,	8	1,601	1,051	1,097	65	85	13,033 82
Chelsea,	1	608	364	414	60	22	3,197 13
Chicopee,	3	325	250	395	40	35	2,741 56
Clinton,	2	326	95	198	75	11	1,402 75
Dudley,	1	20	17	25	50	4	267 52
Easthampton,	13	90	102	128	30	13	456 00
Everett,	4	209	101	151	72	12	2,176 95
Fall River,	22	1,904	950	1,517	50	139	11,169 40
Fitchburg,	3	316	79	155	50	26	2,400 00
Framingham,	1	208	68	90	43	10	995 61
Gardner,	1	337	49	211	44	38	1,399 35
Gloucester,	1	22	10	13	20	1	60 00
Grafton,	2	34	11	33	42	4	386 50
Greenfield,	1	96	38	23	37	5	365 50
Hatfield,	1	18	-	10	30	1	62 29
Haverhill,	7	447	225	482	60	42	2,680 00
Holyoke,	6	859	674	829	56	67	6,927 30
Hyde Park,	9	155	107	125	64	9	1,256 64
Lawrence,	5	1,854	937	1,765	74	88	11,108 47
Leominster,	1	190	70	125	44	19	1,250 00
Lowell,	19	2,894	1,257	2,334	70	177	24,528 00
Lynn,	2	1,375	476	525	47	46	4,925 18
Malden,	3	531	356	458	57	35	4,715 97
Marlborough,	8	247	32	227	50	8	475 22
Medford,	3	198	69	69	51	9	997 48
Milford,	1	220	65	197	33	15	1,000 00
New Bedford,	8	1,546	777	1,083	40	65	6,615 81
Newburyport,	1	71	32	23	67	5	623 30
Newton,	3	300	87	183	50	14	2,463 17
North Adams,	4	236	52	172	40	13	1,347 68
Northampton,	3	93	35	77	60	8	719 00
North Attleborough,	1	111	28	39	35	6	232 50
Northbridge,	4	92	26	75	30	7	505 03
Norwood,	2	24	5	22	20	2	130 00
Peabody,	1	179	8	107	45	11	648 25
Pittsfield,	9	232	145	109	50	10	1,130 38
Plymouth,	2	106	59	130	56	9	770 00
Quincy,	3	338	36	148	40	11	1,500 00
Rockland,	1	70	9	24	35	2	274 75
Salem,	4	468	105	199	56	27	2,974 00
Somerville,	5	1,076	472	505	75	44	10,114 80
Southbridge,	4	127	95	169	38	11	631 94
Spencer,	1	14	7	18	31	2	88 00
Springfield,	8	1,620	805	1,119	78	96	15,133 36
Taunton,	10	472	197	366	41	32	4,167 36
Wakefield,	1	89	38	85	60	8	948 25
Waltham,	3	336	102	202	33	15	2,018 50
Warren,	2	61	38	43	30	3	130 00
Webster,	2	123	56	41	50	9	605 00
Westfield,	1	121	77	89	40	7	583 00
Woburn,	5	169	24	47	38	10	500 11
Worcester,	16	1,990	870	1,386	109	118	28,703 99
Totals,	284	32,683	16,778	26,444	49	1,906	\$312,520 93

RETURNS OF SCHOOLS IN STATE INSTITUTIONS FOR THE SCHOOL YEAR 1907-1908.

STATE INSTITUTIONS.	No. of schools in the institution.	No. of different scholars of all ages during the year.	Average attendance during the year.	No. under 5 years of age attending school.	No. over 15 years of age attending school.	No. between 5 and 15 years in the institution at the end of the school year.	No. of Teachers during the Year.		Wages of Teachers per Month.		Length of each school.
							Males.	Females.	Males.	Females.	
State Industrial School for Girls, . . .	9	397	228	-	360	37	-	11	-	\$25 00 ¹ to \$33 33 ¹	10 mos.
Lyman School for Boys at Westborough, .	8	729	378	-	380	349	3	13	\$66 66 ¹ to 100 00 ¹	\$25 00 ¹ to \$66 66 ¹	44 wks.

¹ And home.

GRADUATED TABLES.

In order to show the comparative standing of the towns and cities (1) in the taxes which they impose upon themselves for the support of their public schools, (2) in the ratio which these taxes bear to their respective valuations, and (3) in the ratio of the attendance upon the public schools to the whole number of children between five and fifteen, three graduated tables have been prepared.

For the sake of brevity as well as convenience of reference these tables may be named as follows:—

- I. Graduated taxation table.
- II. Graduated valuation table.
- III. Graduated attendance table.

I. Graduated Taxation Table.

In this table the towns and cities are classified or ranked according to the amounts which they severally raise by local taxation for the school support of each child in the average membership of the public schools. It is the average membership that more than any other factor determines the expense of the schools, and it is the expenditure for each child in the average membership that more than any other factor determines a town's liberality in matters of school support. In some places large numbers of children between five and fifteen are in private schools; the amount raised for the public schools is correspondingly reduced. Consequently the amounts of the local tax for each child between five and fifteen in such places are relatively small. To use such amounts, however, as evidence of the economy or the parsimony of towns would be illogical and unjust.

Advantage is taken of this table to present important data not given in reports previous to the sixty-sixth. They are the amounts yielded for each child in the average membership by the local tax *plus* the State and other contributions. In the column next to the last, the amounts measure the local taxation burden for each child in the average membership. That is to say, the former column shows what the town unaided is doing for the child, the latter column what the child gets from all sources.

BOARD OF EDUCATION.

II. *Graduated Valuation Table.*

This table exhibits for the several towns and cities the ratios which the sums raised by taxation and expended for the support of the public schools bear to their respective assessed valuations. For convenience of apprehension the ratio in each case is expressed as so many dollars of tax on a thousand dollars of valuation.

III. *Graduated Attendance Table.*

This table exhibits for the several towns and cities the ratio in each case of the average attendance upon the public schools to the whole number of children between five and fifteen reported in the school census. If there are no private schools, the ratio is likely to be high. If there are no private schools and at the same time an unusually large proportion of the children under five and over fifteen are attending school, the ratio may exceed even a hundred per cent. On the other hand, if children attend private schools in any considerable number, the fact is reflected in a lower ratio.

I. GRADUATED TAXATION TABLE.

Table showing for the several towns and cities of the State the comparative amounts of money expended for the support of public schools per child, as determined (1) by the number of children between five and fifteen years of age in the town or city and (2) by the number of children in the average membership of the public schools.

Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.	Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.	TOWNS AND CITIES.	AMOUNT EXPENDED FOR THE SUPPORT OF THE PUBLIC SCHOOLS FROM THE —		NUMBER OF CHILDREN —		Amount of local tax for school support for each child between five and fifteen years of age.	AMOUNT YIELDED FOR EACH CHILD IN THE AVERAGE MEMBERSHIP OF THE PUBLIC SCHOOLS BY THE —	
			Local tax only.	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
1906-7.	1907-8.								
1	1	Lincoln,	\$6,775 89	\$7,342 21	137	103	\$49 46	\$65 79	\$71 28
2	2	Weston,	17,688 85	17,688 85	297	281	59 56	62 95	62 95
343	3	Mt. Washington,	501 66	1,539 78	12	9	41 81	55 74	171 09
4	4	Brookline,	207,170 71	207,170 71	3,614	3,755	57 32	55 17	55 17
5	5	Hull,	11,236 83	11,236 83	191	221	58 83	50 85	50 85
6	6	Nahant,	8,134 41	8,134 41	174	160	46 75	50 84	50 84
8	7	Milton,	68,334 84	68,334 84	1,330	1,364	51 38	50 77	50 77
5	8	Manchester,	22,091 06	22,091 06	398	442	55 53	49 91	49 91
7	9	Dover,	4,921 55	6,599 99	129	109	38 15	45 15	60 50
9	10	Petersham,	5,919 49	7,920 77	130	135	45 53	43 85	58 67
11	11	Wellesley,	37,488 59	37,734 69	774	873	48 43	42 94	43 22
19	12	Falmouth,	21,673 27	22,192 52	490	511	44 23	42 41	43 43
18	13	Stockbridge,	14,619 11	14,982 19	363	346	40 27	42 25	43 30
12	14	Cohasset,	17,969 13	18,006 97	443	429	40 56	41 89	41 97
13	15	Newton,	256,713 94	256,713 94	6,597	6,223	38 91	41 25	41 25
77	16	Tolland,	852 56	1,552 56	36	21	23 68	40 60	73 93
16	17	Harvard,	5,053 15	6,755 09	167	125	30 26	40 43	54 04
20	18	Lancaster,	12,871 37	12,871 37	374	321	34 42	40 10	40 10
56	19	Longmeadow,	5,254 97	6,745 84	189	133	27 80	39 51	50 72
43	20	Scituate,	17,320 94	17,380 44	427	451	40 56	38 41	38 54

Table showing the comparative amounts of money expended for the support, etc. — Continued.

Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.	TOWNS AND CITIES.	AMOUNT EXPENDED FOR THE SUPPORT OF THE PUBLIC SCHOOLS FROM THE —		NUMBER OF CHILDREN —		Amount of local tax for school support for each child between five and fifteen years of age.	AMOUNT YIELDED FOR EACH CHILD IN THE AVERAGE MEMBERSHIP OF THE PUBLIC SCHOOLS BY THE —	
		Local tax only.	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
1906-7.	1907-8.							
50	21	\$439,134 44	\$439,134 44	12,694	11,516	\$34 59	\$38 13	\$38 13
38	22	31,224 33	31,497 65	806	823	38 79	37 94	38 27
15	23	11,112 39	11,713 41	262	293	42 41	37 93	39 98
80	24	5,159 61	6,210 74	182	137	28 35	37 66	45 33
21	25	4,634 93	5,669 02	142	125	32 64	37 08	45 35
17	26	13,508 53	13,547 03	357	369	37 84	36 61	36 71
47	27	6,674 99	8,839 27	188	183	35 51	36 48	48 30
22	28	3,458,766 09	3,517,147 90	104,150	94,903	33 21	36 45	37 06
14	29	7,152 22	9,761 22	202	199	35 41	35 94	49 05
37	30	6,892 30	8,139 21	241	193	28 60	35 71	42 17
32	31	25,518 66	28,824 11	655	719	38 96	35 49	40 09
30	32	101,711 23	101,711 23	2,888	2,887	35 22	35 23	35 23
34	33	4,846 21	6,946 71	185	138	26 20	35 12	50 34
35	34	214,383 14	214,383 14	10,460	6,144	20 50	34 89	34 89
23	35	2,109 01	3,294 01	69	61	30 57	34 57	54 00
10	36	30,460 49	30,460 49	792	887	38 46	34 34	34 34
31	37	5,553 59	7,659 08	222	162	25 02	34 28	47 28
94	38	4,738 05	5,895 53	145	139	32 68	34 09	42 41
28	39	6,473 82	9,497 31	187	190	34 62	34 07	49 99
26	40	7,343 40	8,457 93	223	216	32 93	34 00	39 16
60	41	12,461 09	14,089 33	366	368	34 05	33 86	38 29
68	42	61,987 79	61,987 79	2,649	1,833	23 40	33 82	33 82
109	43	21,602 61	22,767 66	1,019	644	21 20	33 54	35 35
45	44	27,619 52	28,965 02	749	826	36 88	33 44	35 07
51	45	11,499 97	11,626 31	315	344	36 51	33 43	33 80
62	46	12,252 99	13,932 70	587	367	21 04	33 39	37 96
41	47	495,888 78	503,583 39	16,110	14,957	30 78	33 15	33 67
69	48	171,487 14	172,446 56	6,948	5,658	24 68	33 09	30 48

SCHOOL RETURNS.

40	49	Dedham,	52,705 75	54,734 18	1,396	1,607	37 75	32 80	34 06
42	50	Lowell, .	373,060 84	379,621 97	14,498	11,375	25 73	32 80	33 37
63	51	Belmont,	25,431 41	25,639 41	845	779	30 10	32 64	32 91
39	52	Canton, .	18,705 26	18,964 76	831	576	22 50	32 47	32 92
27	53	Plainville,	6,424 93	8,144 18	208	201	30 89	31 96	40 52
36	54	Arlington,	56,720 59	58,578 78	1,859	1,778	30 51	31 90	32 95
33	55	Waltham,	100,771 13	100,911 63	3,967	3,172	25 27	31 77	31 87
102	56	Melrose,	94,251 30	94,251 30	2,597	2,974	36 29	31 69	31 69
46	57	Winchester,	50,966 61	51,226 61	1,681	1,617	30 32	31 52	31 68
87	58	Littleton,	6,315 84	8,505 83	218	201	28 97	31 42	42 32
54	59	Ware, .	31,225 33	31,591 01	1,537	995	20 32	31 30	31 75
82	60	Dracut,	15,544 53	17,231 02	538	497	28 89	31 28	34 67
59	61	Walpole,	24,680 22	24,988 72	807	791	30 58	31 20	31 59
53	62	Worcester,	632,397 74	636,913 89	22,680	20,305	27 88	31 14	31 37
44	63	Boylston,	3,360 04	5,490 19	126	108	26 67	31 11	50 84
140	64	Franklin,	23,799 13	24,821 68	1,043	765	22 82	31 11	32 45
94	65	Hamilton,	9,046 23	9,527 73	308	292	29 37	30 98	32 63
29	66	Webster,	22,647 40	22,647 40	2,010	734	11 27	30 85	30 85
57	67	Fitchburg,	123,515 37	124,348 87	6,785	4,018	18 20	30 74	30 95
126	68	North Andover,	24,300 03	24,386 59	793	791	30 64	30 72	30 83
67	69	Concord,	30,659 19	37,634 05	900	998	34 07	30 72	38 71
48	70	Malden,	205,283 85	205,283 85	7,744	6,695	26 51	30 66	30 66
72	71	Lawrence,	251,816 22	251,816 22	13,200	8,248	19 08	30 53	30 53
49	72	North Adams,	92,716 98	92,716 98	4,370	3,051	21 22	30 39	30 39
65	73	Medford,	120,807 54	120,973 04	3,914	3,988	30 87	30 29	30 33
52	74	Watertown,	48,126 41	48,235 41	1,927	1,591	24 97	30 25	30 32
81	75	Attleborough,	63,620 51	64,934 59	2,521	2,109	25 24	30 17	30 79
74	76	Wilbraham,	6,626 05	8,261 98	231	220	28 68	30 12	37 55
64	77	Lenox, .	18,420 12	18,620 12	584	612	31 54	30 10	30 44
84	78	Leominster,	62,715 70	64,146 06	2,778	2,095	22 53	29 94	30 62
79	79	New Bedford,	285,120 06	287,454 10	14,056	9,603	20 28	29 69	29 93
73	80	Southborough,	9,527 86	11,422 16	294	323	32 41	29 50	35 36
78	81	Salem, .	141,263 22	142,387 47	7,072	4,794	19 90	29 47	29 70
61	82	Montague,	33,801 50	34,576 87	1,238	1,149	27 30	29 42	30 09
75	83	Andover,	32,581 90	36,258 00	1,301	1,110	25 04	29 35	32 66
76	84	Reading,	32,999 76	35,067 47	997	1,125	33 10	29 33	31 17
229	85	Lynnfield,	2,869 25	4,719 25	118	98	24 32	29 28	48 16
71	86	Sharon,	9,530 90	11,674 09	346	326	27 55	29 24	35 81
88	87	Winthrop,	43,343 04	43,343 04	1,398	1,483	31 00	29 23	29 23

Table showing the comparative amounts of money expended for the support, etc. — Continued.

Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.	TOWNS AND CITIES.	For Public —		Numbers of Children —		Amount of local tax for school support for each child between five and fifteen years of age.	Amount yielded for each child in the average membership of the public schools by the —	
		Local tax only.	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
1906-7.								
55	Norton.	38,614 66	310,558 23	324	297	\$26 59	\$29 01	\$35 55
119	Norfolk.	4,028 87	5,686 03	150	139	37 78	28 98	40 77
85	Somerville.	340,862 07	340,862 07	11,398	11,793	27 72	28 90	28 90
91	Tyngsborough.	3,202 54	5,417 26	140	111	22 88	28 85	48 80
122	Mattapoisett.	5,358 67	6,410 68	219	187	24 46	28 64	34 28
92	Lynn.	289,002 54	291,648 57	12,213	10,129	23 52	28 59	28 79
106	Wareham.	16,397 87	17,263 27	543	577	39 20	28 42	30 09
110	Brockton.	228,205 57	228,510 34	4,940	8,115	28 91	28 12	28 16
104	Brewster.	2,527 50	3,717 30	112	90	22 57	28 08	41 30
148	Westborough.	18,138 80	18,209 80	675	646	26 87	28 08	28 19
99	Westfield.	60,113 28	68,213 63	2,451	2,142	24 53	28 06	31 85
97	Needham.	23,977 42	24,436 92	796	857	30 12	27 98	28 51
93	Gardner.	44,702 38	44,980 68	2,217	1,568	20 16	27 97	28 16
122	Clinton.	49,404 75	49,404 75	2,416	1,782	20 45	27 72	27 72
101	Northampton.	76,468 71	79,508 17	3,071	2,765	24 91	27 67	28 76
102	Everett.	169,541 17	169,841 67	5,846	6,153	29 00	27 55	27 60
112	Amesbury.	25,458 86	25,458 86	1,632	928	15 60	27 49	27 49
95	Westford.	10,518 84	12,521 34	403	394	26 85	27 43	31 78
139	Williamstown.	21,068 71	31,355 84	804	772	26 20	27 29	37 00
113	Norwood.	40,040 77	40,212 77	1,446	1,471	27 69	27 22	37 84
90	Spencer.	24,633 09	25,172 15	1,208	908	20 39	27 13	27 72
123	Chicopee.	68,278 82	68,487 12	3,515	2,521	19 42	27 08	37 17
108	Townsend.	7,293 75	8,712 82	264	262	27 63	27 08	33 26
110	Adams.	42,376 52	42,376 52	2,230	1,566	19 00	27 06	37 06
128	Dartmouth.	15,856 19	16,055 67	759	594	20 99	26 69	28 04
147	Revere.	78,838 42	78,893 92	3,203	2,961	24 61	26 63	26 64
96	Wakefield.	55,635 55	57,773 29	1,889	2,091	29 45	26 61	27 76
137	Pittsfield.	110,787 67	110,787 67	4,593	4,170	24 12	26 57	26 57
117								
1907-8.								
88	Norton.							
89	Norfolk.							
90	Somerville.							
91	Tyngsborough.							
92	Mattapoisett.							
93	Lynn.							
94	Wareham.							
95	Brockton.							
96	Brewster.							
97	Westborough.							
98	Westfield.							
99	Needham.							
100	Gardner.							
101	Clinton.							
102	Northampton.							
103	Everett.							
104	Amesbury.							
105	Westford.							
106	Williamstown.							
107	Norwood.							
108	Spencer.							
109	Chicopee.							
110	Townsend.							
111	Adams.							
112	Dartmouth.							
113	Revere.							
114	Wakefield.							
115	Pittsfield.							

SCHOOL RETURNS.

CV

108	Barre, . . .	10,143 77	12,116 77	431	382	23 54	26 55	31 72
141	Chelmsford, . .	20,523 27	21,709 27	800	775	25 65	26 52	28 01
129	North Attleborough, . .	33,339 92	33,339 92	1,172	1,259	28 45	26 48	26 48
25	Boxford, . . .	2,303 34	3,760 96	105	87	21 94	26 48	43 23
89	West Brookfield, . .	3,884 92	6,020 78	187	147	20 77	26 42	40 96
106	Stoneham, . . .	29,021 90	29,201 90	1,083	1,101	26 80	26 36	26 52
101	Frammingham, . .	54,273 39	54,906 28	1,931	2,059	28 11	26 36	26 67
107	Peabody, . . .	49,666 45	49,828 45	2,377	1,890	20 89	26 28	26 36
163	Danvers, . . .	39,206 09	40,186 09	1,359	1,492	28 85	26 28	26 93
121	Greenfield, . . .	40,542 21	41,552 21	1,570	1,544	25 82	26 27	26 47
118	Natick, . . .	45,808 17	46,376 28	1,629	1,750	28 18	26 23	26 50
66	Marshfield, . . .	6,897 25	8,261 92	242	263	28 50	26 22	31 41
83	Topshfield, . . .	3,371 60	4,523 41	116	129	29 07	26 14	35 07
125	Taunton, . . .	122,945 52	125,555 24	5,638	4,706	21 81	26 13	26 68
143	Fall River, . . .	355,838 67	364,776 21	21,862	13,702	16 28	25 97	26 62
127	Dudley, . . .	9,661 24	11,215 10	809	373	11 94	25 96	30 07
162	Palmer, . . .	26,876 81	26,876 81	1,415	1,039	18 99	25 87	25 87
202	Bellingham, . . .	6,707 66	8,445 31	313	260	21 43	25 80	32 48
155	Chelsea, . . .	168,613 75	168,879 19	7,440	6,543	22 66	25 77	25 81
114	Ashby, . . .	3,163 61	5,489 56	125	123	25 31	25 72	44 63
124	Abington, . . .	23,800 14	24,983 14	469	927	50 75	25 67	26 96
70	Carver, . . .	4,903 42	6,077 10	208	191	23 57	25 67	31 82
116	Deerfield, . . .	7,225 12	8,864 36	346	282	20 88	25 62	31 40
174	Southbridge, . .	27,059 75	27,704 75	2,155	1,057	12 56	25 60	26 21
142	Bridgewater, . .	21,284 65	29,032 15	714	831	29 76	25 59	34 94
115	Norwell, . . .	5,928 94	8,367 10	227	233	26 12	25 45	35 09
334	Holland, . . .	329 26	784 49	17	13	19 37	25 33	60 35
165	Athol, . . .	29,477 75	30,641 05	1,262	1,166	23 35	25 28	26 28
188	Marblehead, . .	30,519 81	30,519 81	1,140	1,219	26 77	25 04	25 04
154	Great Barrington, . .	26,377 85	27,924 35	938	1,054	28 12	25 03	26 49
135	Weymouth, . . .	53,624 72	53,732 72	2,028	2,144	26 44	25 01	25 06
149	Grafton, . . .	20,424 69	22,410 86	883	817	23 13	25 00	27 43
136	Warren, . . .	13,996 19	16,866 93	707	560	19 80	24 99	30 12
134	Plymouth, . . .	46,920 61	46,938 86	1,973	1,878	23 78	24 98	24 99
168	Orange, . . .	24,676 82	24,676 82	918	990	26 88	24 93	24 93
153	Foxborough, . .	14,239 75	15,866 87	533	574	26 72	24 81	27 64
111	Maynard, . . .	19,646 53	20,271 53	723	793	21 17	24 77	25 56
86	Acton, . . .	8,196 12	9,728 60	340	331	24 11	24 76	29 39
151	Royalston, . . .	3,488 75	5,422 97	143	141	23 70	24 74	38 46

Table showing the comparative amounts of money expended for the support, etc. — Continued.

Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.	TOWNS AND CITIES.	EXPENSES FROM 1888 —		NUMBER OF CHILDREN —		Amount of local tax for school support for each child between five and fifteen years of age.	AMOUNT YIELDED FOR EACH CHILD IN THE AVERAGE MEMBERSHIP OF THE PUBLIC SCHOOLS BY THE —	
		Local tax only.	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
1906-Y.								
150	Braintree.	\$33,479 48	\$33,947 48	1,261	1,355	\$26 55	\$24 71	\$25 05
151	Sunderland.	3,187 30	5,534 41	161	129	10 98	24 71	42 90
157	Brookfield.	9,044 92	10,869 91	369	367	25 19	24 65	29 62
158	North Reading.	3,168 05	5,712 71	166	120	19 07	24 35	43 94
159	Kingston.	9,089 99	10,683 99	395	373	22 89	24 24	28 84
156	Mansfield.	19,455 57	19,979 07	833	808	23 35	24 14	24 79
160	Richmond.	1,508 64	3,186 36	83	65	18 91	24 13	49 02
161	Marlborough.	56,612 53	56,927 96	2,923	2,368	19 37	28 91	24 04
162	Duxbury.	5,487 40	7,032 68	208	230	26 38	23 86	30 58
163	Stoughton.	19,879 25	20,896 25	991	836	20 06	23 78	24 04
164	Easton.	21,855 85	29,241 36	906	915	23 90	23 67	31 96
165	Whitman.	30,278 86	31,409 60	1,284	1,284	24 03	23 58	24 46
167	Hanson.	5,148 86	6,676 75	286	219	18 00	23 51	30 49
168	Uxbridge.	16,815 08	18,653 26	799	716	21 05	23 49	26 05
169	Sturbridge.	6,739 50	8,714 49	346	267	19 37	23 48	30 36
170	Saugus.	33,622 25	33,982 25	1,393	1,438	24 14	23 46	23 71
171	Dalton.	14,538 64	15,542 14	609	621	23 87	23 41	25 03
172	Blandford.	1,731 30	3,776 90	91	74	19 03	23 40	51 04
173	Middleborough.	29,457 11	31,062 04	1,260	1,261	23 39	23 37	24 63
174	Halifax.	1,842 32	3,115 48	83	79	23 20	23 32	39 44
175	Oak Bluffs.	4,593 89	4,936 79	273	197	16 83	23 32	25 06
176	Hudson.	24,768 03	25,061 03	1,102	1,070	22 47	23 15	23 42
177	Wellfleet.	3,110 96	4,109 76	134	135	23 06	23 04	30 44
178	Rockland.	25,016 20	26,204 95	1,059	1,130	24 57	23 02	23 19
179	Merrimac.	7,903 55	9,654 23	332	344	23 81	22 98	28 06
180	Haver.	8,512 83	9,896 90	359	371	23 71	22 95	26 08
181	Charlmont.	3,549 64	6,210 47	173	155	20 64	22 90	40 07
182	Quincy.	126,633 34	129,933 50	7,253	5,670	17 86	22 86	22 92
1907-S.								

SCHOOL RETURNS.

185	183	Newbury, .	4,479 11	6,135 34	220	196	20 36	22 85	31 30
186	184	South Hadley,	20,330 94	21,424 94	936	891	21 72	22 82	24 05
175	185	Lee, .	13,405 35	15,545 74	727	588	18 44	22 80	26 44
159	186	Shrewsbury, .	7,066 30	8,770 79	293	310	24 12	22 78	28 29
178	187	Agawam, .	9,658 83	11,494 64	548	425	17 63	22 73	27 05
199	188	Methuen, .	34,533 58	35,001 99	1,892	1,525	18 25	22 64	22 95
238	189	Rockport, .	18,576 30	18,576 30	814	822	22 82	22 60	22 60
211	190	Georgetown, .	5,776 10	5,776 10	308	256	18 75	22 56	22 56
276	191	Lanesborough,	2,414 11	4,228 45	138	107	17 49	22 56	39 52
161	192	Milford, .	38,340 17	38,467 27	2,100	1,701	18 26	22 54	22 61
255	193	Westport, .	8,255 88	9,730 51	507	413	16 28	22 41	23 56
190	194	Oxford, .	11,584 91	13,755 67	576	517	20 08	22 37	26 61
230	195	Medway, .	9,947 80	11,183 79	408	445	24 38	22 35	25 13
209	196	Northbridge, .	31,733 91	31,790 91	1,554	1,424	20 43	22 29	22 32
235	197	Hatfield, .	5,384 41	6,703 91	264	242	20 40	22 25	27 70
320	198	Montgomery, .	599 74	2,284 15	35	27	17 14	22 21	84 60
309	199	Washington, .	1,066 14	2,042 37	60	48	17 67	22 21	42 55
191	200	Northborough,	7,250 91	9,260 21	337	327	21 52	22 17	28 32
158	201	Nantucket, .	8,732 79	9,039 99	412	395	21 20	22 11	22 89
144	202	Mendon, .	3,380 05	5,543 70	143	153	23 64	22 09	36 23
244	203	Douglas, .	6,580 43	8,165 88	347	299	18 96	22 00	27 31
312	204	Ashfield, .	3,397 91	6,285 10	149	155	22 80	21 92	40 55
280	205	Enfield, .	3,081 43	5,384 12	171	141	18 06	21 85	38 19
212	206	Dennis, .	6,721 89	8,243 51	279	308	24 09	21 82	26 76
207	207	Leicester, .	14,393 40	17,966 81	710	662	20 27	21 74	27 14
182	208	Warwick, .	2,209 98	4,223 67	121	102	18 26	21 67	41 41
228	209	Pepperell, .	13,911 43	15,708 82	585	643	23 78	21 64	24 43
200	210	Woburn, .	59,186 28	59,869 78	3,463	2,738	17 09	21 62	21 87
164	211	Billerica, .	10,982 37	12,462 37	519	509	21 16	21 58	24 48
305	212	New Marlborough,	3,796 13	5,772 07	189	176	20 09	21 57	32 80
218	213	North Brookfield,	8,529 06	10,308 05	509	396	16 76	21 54	26 03
201	214	Randolph, .	13,987 42	15,668 15	707	650	19 78	21 52	24 10
203	215	Lunenburg, .	4,083 47	5,954 10	220	190	18 47	21 49	31 34
184	216	Wilmington, .	7,936 94	9,720 07	355	370	22 36	21 45	26 27
214	217	Newburyport,	42,000 00	44,914 23	2,361	1,980	17 79	21 43	22 91
267	218	Sherborn, .	4,130 58	5,468 21	225	193	18 36	21 40	28 33
208	219	Dighton, .	6,716 38	8,087 06	387	314	17 35	21 39	25 75
216	220	Gloucester, .	99,796 26	99,796 26	4,601	4,678	21 69	21 33	21 33
283	221	West Stockbridge,	3,162 38	5,830 25	202	149	15 66	21 26	39 13

SCHOOL RETURNS.

253	250	Upton, .	.	.	6,576 23	8,188 22	313	329	117 01	19 99	24 89
266	251	Cheshire, .	.	.	4,035 50	5,808 00	241	203	16 74	19 88	28 61
267	252	Easthampton, .	.	.	22,198 86	23,087 51	1,247	1,117	17 80	19 87	20 67
276	253	Ashburnham, .	.	.	6,398 47	7,993 77	362	325	17 68	19 69	24 00
219	254	West Springfield, .	.	.	32,888 53	35,541 43	1,705	1,682	19 29	19 55	21 13
283	255	Groveland, .	.	.	8,355 94	10,069 97	436	428	19 17	19 52	23 53
220	256	Sterling, .	.	.	3,998 73	6,382 54	200	205	19 99	19 51	31 13
237	257	Hubbardston, .	.	.	3,491 00	5,043 00	195	179	17 90	19 50	28 17
249	258	Conway, .	.	.	4,059 45	6,027 32	194	209	20 93	19 42	28 84
232	259	West Newbury, .	.	.	5,009 25	7,349 24	234	259	21 41	19 34	28 38
246	260	Millbury, .	.	.	14,539 98	16,857 39	843	758	17 24	19 18	22 24
217	261	East Bridgewater, .	.	.	10,742 48	12,531 90	548	561	19 00	19 15	22 34
279	262	Pembroke, .	.	.	3,323 36	4,780 41	191	174	17 40	19 10	27 47
213	263	Barnardston, .	.	.	2,518 69	4,892 06	110	132	22 90	19 08	37 06
298	264	Dana, .	.	.	2,206 85	4,464 97	118	116	18 70	19 02	38 49
319	265	Hinsdale, .	.	.	4,103 14	6,224 39	261	217	15 72	18 91	28 68
222	266	Orleans, .	.	.	3,573 34	5,847 54	169	189	21 14	18 91	30 94
313	267	West Tisbury, .	.	.	1,284 87	2,483 05	67	68	19 18	18 90	36 52
170	268	Edgartown, .	.	.	3,227 70	4,835 70	180	173	17 93	18 66	27 95
227	269	Sandisfield, .	.	.	1,469 24	3,141 08	98	79	14 99	18 60	39 76
210	270	Brimfield, .	.	.	2,077 43	3,673 08	146	112	14 23	18 55	32 80
58	271	Whately, .	.	.	1,462 48	3,721 97	111	79	13 18	18 51	47 11
258	272	Harwich, .	.	.	6,279 66	7,950 95	353	341	17 79	18 42	23 02
270	273	Erving, .	.	.	3,401 69	5,434 23	179	185	19 00	18 39	29 37
254	274	Holbrook, .	.	.	9,116 30	10,549 78	488	496	18 68	18 38	21 27
252	275	Millis, .	.	.	4,457 88	6,412 24	262	243	17 01	18 35	26 39
292	276	Salisbury, .	.	.	3,840 96	5,031 85	287	210	13 38	18 29	23 96
284	277	Carlisle, .	.	.	1,548 52	3,047 43	89	85	17 39	18 22	35 85
296	278	Phillipston, .	.	.	1,162 18	2,474 76	76	64	15 29	18 16	38 67
242	279	West Bridgewater, .	.	.	6,308 53	7,775 22	388	348	16 26	18 13	22 34
268	280	Middleton, .	.	.	2,546 12	4,810 75	185	141	13 76	18 06	34 12
300	281	Shutesbury, .	.	.	790 40	2,026 02	49	44	16 13	17 96	46 05
347	282	Greenwich, .	.	.	938 50	2,124 08	88	53	10 67	17 71	40 08
226	283	Rutland, .	.	.	3,846 49	5,851 48	237	218	16 23	17 64	26 84
289	284	Becket, .	.	.	2,284 17	4,968 02	173	130	13 20	17 57	38 22
345	285	Lakeville, .	.	.	2,412 09	4,476 54	141	138	17 11	17 48	32 44
306	286	Buckland, .	.	.	3,881 78	6,981 78	261	225	14 87	17 25	31 03
239	287	Holden, .	.	.	7,623 00	10,032 70	421	443	18 11	17 21	22 65
318	288	Sutton, .	.	.	6,967 07	9,207 27	672	408	10 37	17 08	22 57

BOARD OF EDUCATION.

Table showing the comparative amounts of money expended for the support, etc. — Concluded.

Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.	TOWNS AND CITIES.	AMOUNT EXPENDED FOR THE SUPPORT OF THE PUBLIC SCHOOLS FROM THE —		NUMBER OF CHILDREN —		Amount of local tax for school support for each child between five and fifteen years of age.	AMOUNT YIELDED FOR EACH CHILD IN THE AVERAGE MEMBERSHIP OF THE PUBLIC SCHOOLS BY THE —	
		Local tax only.	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
1906-7.	1907-8.							
286	289			356	284	\$13 61	\$17 06	\$24 74
317	290			182	153	14 32	17 03	34 34
302	291			257	221	14 61	16 99	24 64
259	292			109	113	17 61	16 98	38 68
248	293			185	208	19 50	16 86	25 31
265	294			720	587	13 64	16 73	20 64
294	295			245	240	16 31	16 65	22 89
293	296			95	79	13 75	16 53	40 90
261	297			108	90	13 72	16 47	38 30
274	298			175	143	13 42	16 43	34 78
250	299			73	49	10 99	16 38	39 58
337	300			362	291	13 10	16 29	28 66
247	301			319	316	16 14	16 29	28 07
295	302			472	323	11 11	16 24	22 48
288	303			168	136	13 13	16 22	30 52
271	304			270	232	13 79	16 05	26 36
278	305			412	364	14 10	15 96	21 25
272	306			390	367	14 92	15 85	22 12
304	307			267	320	18 89	15 76	25 10
262	308			72	69	14 66	15 30	50 80
194	309			60	42	10 69	15 28	44 04
328	310			157	142	13 79	15 25	27 41
277	311			102	76	11 32	15 20	38 73
338	312			41	39	14 27	15 00	32 95
256	313			78	75	14 29	14 87	39 34
273	314			1,196	1,061	13 09	14 76	17 29
307	315			370	299	11 91	14 74	24 61
326	316			90	87	14 02	14 51	34 21

SCHOOL RETURNS.

331	317	Hancock,	.	.	.	1,015	60	2,523	87	81	71	12	54	14	30	35	55
329	318	Gill, .	.	.	.	1,820	00	3,860	63	146	130	12	47	14	00	29	70
285	319	Paxton,	.	.	.	1,200	00	2,927	02	87	86	13	79	13	95	34	04
349	320	Plainfield,	.	.	.	737	88	2,009	39	64	53	11	53	13	92	37	19
98	321	Prescott,	.	.	.	637	77	2,477	59	59	46	10	81	13	86	53	86
301	322	Belchertown,	.	.	.	5,350	55	8,197	94	390	386	13	72	13	86	21	24
303	323	Egremont,	.	.	.	1,091	33	2,717	10	87	79	12	54	13	81	34	39
316	324	Williamsburg,	.	.	.	5,254	68	8,560	27	397	382	13	24	13	75	22	41
325	325	Wales, .	.	.	.	1,275	21	2,662	15	95	93	13	42	13	71	28	63
322	326	Seekonk,	.	.	.	3,627	79	5,896	54	280	266	12	96	13	64	22	17
290	327	Chester,	.	.	.	3,735	52	7,355	51	269	274	13	89	13	63	26	84
324	328	Rowley,	.	.	.	3,156	92	5,353	95	324	232	9	74	13	61	23	08
297	329	Provincetown,	.	.	.	12,999	94	15,215	54	881	958	14	76	13	57	15	88
310	330	Somerset,	.	.	.	6,178	58	7,543	41	490	456	12	61	13	55	16	54
315	331	Westhampton,	.	.	.	1,200	00	3,112	26	114	89	10	53	13	48	34	97
333	332	Peru, .	.	.	.	606	36	2,147	31	69	46	8	79	13	18	46	68
330	333	Worthington,	.	.	.	1,172	71	3,128	20	104	91	11	28	12	89	34	38
308	334	Alford, .	.	.	.	512	79	1,399	29	51	41	10	05	12	51	34	13
311	335	Truro, .	.	.	.	1,634	66	3,316	26	155	136	10	55	12	02	24	38
336	336	Florida,	.	.	.	873	85	2,515	85	113	75	7	73	11	65	33	53
269	337	Heath, .	.	.	.	573	09	2,203	88	59	52	9	71	11	02	42	38
342	338	Leyden,	.	.	.	682	05	2,053	44	65	62	10	43	11	00	33	12
327	339	Berkley,	.	.	.	1,594	93	3,201	68	172	145	9	27	11	00	22	08
344	340	Cummington,	.	.	.	1,444	57	3,908	12	131	133	11	02	10	86	29	38
340	341	Leverett,	.	.	.	1,218	58	3,274	56	133	113	9	16	10	78	29	86
341	342	Oakham,	.	.	.	914	38	2,452	37	96	88	9	52	10	39	27	87
299	343	Chilmark,	.	.	.	277	85	1,699	06	36	27	7	72	10	29	62	93
332	344	Hawley,	.	.	.	709	09	2,548	24	92	71	7	71	9	98	35	89
350	345	Rowe, .	.	.	.	788	08	2,468	90	96	82	8	21	9	61	30	11
335	346	Monroe,	.	.	.	463	20	1,960	94	58	53	7	99	8	74	37	00
314	347	Goshen,	.	.	.	470	73	1,916	79	62	56	7	59	8	41	34	23
352	348	Middlefield,	.	.	.	740	22	2,968	92	90	95	8	22	7	79	31	25
339	349	Monterey,	.	.	.	501	66	1,539	78	84	65	9	70	7	71	23	69
346	350	Clarksburg,	.	.	.	1,634	65	3,953	81	279	214	5	86	7	64	18	48
351	351	New Ashford,	.	.	.	67	50	679	27	9	9	7	50	7	50	75	47
353	352	Gosnold,	.	.	.	75	50	642	12	16	15	4	72	5	03	42	81
354	353	Gay Head,	.	.	.	111	46	1,375	48	35	37	31	85	3	01	37	18
328	354	Pelham,	.	.	.	180	05	2,266	54	96	74	1	88	2	43	30	63

GRADUATED TAXATION TABLE.

Rank according to the amount yielded for each child in the average membership of the public schools by the local tax for school support.	COUNTIES.	AMOUNT EXPENDED FOR THE SUPPORT OF THE PUBLIC SCHOOLS FROM THE —		NUMBER OF CHILDREN —		Amount of local tax for school support for each child between five and fifteen years of age.	AMOUNT YIELDED FOR EACH CHILD IN THE AVERAGE MEMBERSHIP OF THE PUBLIC SCHOOLS BY THE —	
		Local tax only.	Local tax plus the State and other contributions.	In town between five and fifteen years of age.	In the average membership of the public schools.		Local tax for support.	Local tax plus the State and other contributions.
1907-1908.								
1	Suffolk,	\$3,749,561 30	\$3,808,264 05	116,191	105,890	\$32 27	\$35 41	\$35 96
2	Hampden,	923,124 86	970,153 41	36,564	28,567	25 22	32 31	33 96
3	Norfolk,	922,886 08	952,102 35	31,326	28,950	29 46	31 88	32 88
4	Middlesex,	3,009,903 85	3,092,132 66	106,138	98,599	28 36	30 53	31 26
5	Essex,	1,532,674 71	1,571,353 78	67,772	54,916	22 62	27 91	28 61
6	Worcester,	1,462,761 72	1,569,542 45	66,186	53,414	22 10	27 39	29 38
7	Plymouth,	562,679 75	601,483 18	21,030	21,179	26 76	26 57	28 40
8	Bristol,	992,744 35	1,060,543 36	52,199	37,715	19 03	26 32	28 07
9	Berkshire,	395,155 37	438,639 63	17,997	15,091	21 96	26 18	29 06
10	Barnstable,	113,432 96	139,316 84	4,238	4,460	26 77	25 43	31 01
11	Franklin,	158,103 08	207,997 25	7,280	6,899	21 72	22 92	30 15
12	Hampshire,	209,311 44	255,968 70	10,529	9,414	19 88	22 23	27 19
13	Nantucket,	8,732 79	9,039 99	412	395	21 20	22 11	22 89
14	Dukes,	13,078 40	21,237 02	792	725	16 51	18 04	29 29

AGGREGATE FOR THE STATE.

State,	\$14,054,150 66	\$14,697,774 67	538,654	466,214	\$26 09	\$30 15	\$31 53
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II. GRADUATED VALUATION TABLE.

A graduated table in which all the towns in the State are numerically arranged according to the proportion of their taxable property appropriated for the support of public schools for the year 1907-1908.

For 1906-1907, by the State valuation of 1906.	For 1907-1908, by the State valuation of 1907.	TOWNS AND CITIES.	Amount appropriated to the support of public schools for each thousand dol- lars of valuation.	For 1906-1907, by the State valuation of 1906.	For 1907-1908, by the State valuation of 1907.	TOWNS AND CITIES.	Amount appropriated to the support of public schools for each thousand dol- lars of valuation.
1	1	West Boylston, .	\$9 75	66	48	Westfield, .	\$6 70
2	2	Plainville, .	8 81	47	49	Whitman, .	6 69
3	3	Abington, .	8 56	46	50	Middleborough, .	6 68
68	4	Charlemont, .	8 46	53	51	Holbrook, .	6 66
5	5	Huntington, .	8 41	32	52	Norwood, .	6 66
7	6	Montague, .	8 28	84	53	Wakefield, .	6 65
26	7	Bellingham, .	8 24	44	54	Reading, .	6 61
75	8	West Stockbridge, .	8 14	29	55	Dighton, .	6 60
4	9	Norton, .	7 97	64	56	Bridgewater, .	6 55
20	10	Northbridge, .	7 95	71	57	Williamstown, .	6 54
14	11	Monson, .	7 92	81	58	Franklin, .	6 51
8	12	Petersham, .	7 81	50	59	Ashland, .	6 48
9	13	South Hadley, .	7 77	94	60	Sunderland, .	6 48
6	14	Grafton, .	7 65	93	61	Westford, .	6 46
135	15	Upton, .	7 61	78	62	Foxborough, .	6 45
10	16	Warren, .	7 57	48	63	Holliston, .	6 44
59	17	Medway, .	7 38	83	64	Merrimac, .	6 43
13	18	Weymouth, .	7 38	60	65	Gardner, .	6 39
37	19	Hardwick, .	7 36	113	66	Chelsea, .	6 38
127	20	East Longmeadow, .	7 26	105	67	Townsend, .	6 38
36	21	Hudson, .	7 25	38	68	Wrentham, .	6 36
25	22	Groveland, .	7 18	41	69	Wilbraham, .	6 34
19	23	Adams, .	7 16	118	70	Wayland, .	6 34
18	24	Brookfield, .	7 15	52	71	Templeton, .	6 32
54	25	Savoy, .	7 13	104	72	Millbury, .	6 31
39	26	Orange, .	7 11	70	73	Leicester, .	6 31
49	27	Dracut, .	7 09	338	74	Otis, .	6 30
35	28	Randolph, .	7 07	27	75	Oxford, .	6 29
31	29	Everett, .	7 05	95	76	Malden, .	6 27
33	30	Boylston, .	7 02	76	77	Ashby, .	6 24
148	31	Hinsdale, .	7 02	136	78	Uxbridge, .	6 24
23	32	Colrain, .	7 01	79	79	Wilmington, .	6 24
51	33	Royalston, .	6 98	58	80	Tyngsborough, .	6 23
72	34	Athol, .	6 97	69	81	Chicopee, .	6 23
11	35	Blackstone, .	6 95	96	82	Barre, .	6 23
22	36	Rockland, .	6 92	87	83	Pepperell, .	6 23
21	37	Ware, .	6 89	109	84	Chelmsford, .	6 22
40	38	Spencer, .	6 85	166	85	Ludlow, .	6 22
15	39	Provincetown, .	6 84	86	86	Clinton, .	6 22
73	40	Sturbridge, .	6 83	12	87	Clarksburg, .	6 21
173	41	N. Attleborough, .	6 81	117	88	Littleton, .	6 21
42	42	Lee, .	6 80	145	89	Dana, .	6 21
56	43	Ashburnham, .	6 80	91	90	Dudley, .	6 20
17	44	Norwell, .	6 79	62	91	East Bridgewater, .	6 20
30	45	Palmer, .	6 78	90	92	Leominster, .	6 18
28	46	Mansfield, .	6 75	92	93	Methuen, .	6 18
45	47	Natick, .	6 70	89	94	North Adams, .	6 17

For 1906-1907, by the State valuation of 1906.	For 1907-1908, by the State valuation of 1907.	TOWNS AND CITIES.	Amount appropriated to the support of public schools for each thousand dol- lars of valuation.	For 1906-1907, by the State valuation of 1906.	For 1907-1908, by the State valuation of 1907.	TOWNS AND CITIES.	Amount appropriated to the support of public schools for each thousand dol- lars of valuation.
100	95	Rahoboth, .	\$6 16	170	155	West Bridgewater,	\$5 31
85	96	Conway, .	6 12	142	156	Mendon, .	5 28
121	97	Brookton, .	6 10	128	157	Granville, .	5 28
67	98	Danvers, .	6 09	138	158	Maynard, .	5 26
43	99	Avon, .	6 08	144	159	Andover, .	5 24
131	100	Winchendon, .	6 07	151	160	Arlington, .	5 21
61	101	Fairhaven, .	6 06	188	161	Norfolk, .	5 18
63	102	Warwick, .	6 06	150	162	Peabody, .	5 17
341	103	Mt. Washington, .	6 03	167	163	N. Brookfield, .	5 17
176	104	Rockport, .	6 03	147	164	Sudbury, .	5 13
114	105	Walpole, .	6 02	209	165	Southbridge, .	5 10
88	106	Haverhill, .	5 99	186	166	Florida, .	5 08
178	107	Melrose, .	5 99	183	167	Worcester, .	5 07
34	108	Belchertown, .	5 99	162	168	Somerset, .	5 06
115	109	Hanover, .	5 98	172	169	Attleborough, .	5 05
65	110	Braintree, .	5 93	82	170	Tewksbury, .	5 04
74	111	Bernardston, .	5 93	215	171	Lexington, .	5 03
107	112	Millis, .	5 92	153	172	Raynham, .	5 01
57	113	Saugus, .	5 91	155	173	Concord, .	5 00
106	114	Orleans, .	5 86	110	174	Greenfield, .	4 99
99	115	Stoneham, .	5 85	204	175	Brewster, .	4 98
143	116	Northampton, .	5 83	201	176	Lowell, .	4 94
126	117	Acushnet, .	5 83	270	177	Tolland, .	4 93
158	118	Stoughton, .	5 78	217	178	Westport, .	4 91
97	119	Hopkinton, .	5 78	187	179	Billerica, .	4 86
112	120	Sutton, .	5 75	200	180	Auburn, .	4 88
101	121	Milford, .	5 74	132	181	Chatham, .	4 88
102	122	Agawam, .	5 73	168	182	Sandwich, .	4 87
130	123	Marlborough, .	5 72	196	183	Wendell, .	4 86
137	124	Georgetown, .	5 72	194	184	Gt. Barrington, .	4 86
169	125	Westborough, .	5 71	180	185	Shirley, .	4 86
98	126	Chester, .	5 70	291	186	Lanesborough, .	4 86
55	127	New Salem, .	5 70	224	187	Shrewsbury, .	4 84
279	128	Ashfield, .	5 69	250	188	Chesterfield, .	4 84
122	129	Essex, .	5 65	198	189	Ayer, .	4 82
129	130	Dennis, .	5 63	154	190	Granby, .	4 80
225	131	N. Marlborough, .	5 62	206	191	Holyoke, .	4 79
160	132	Taunton, .	5 61	223	192	Quincy, .	4 77
77	133	Southborough, .	5 57	240	193	Dartmouth, .	4 77
141	134	Framingham, .	5 55	235	194	Berlin, .	4 76
120	135	Williamsburg, .	5 54	216	195	Amherst, .	4 75
146	136	Somerville, .	5 53	133	196	Hingham, .	4 75
123	137	West Springfield, .	5 51	191	197	Springfield, .	4 75
119	138	Revere, .	5 50	189	198	Shelburne, .	4 74
111	139	Sheffield, .	5 48	222	199	Canton, .	4 74
24	140	Cheshire, .	5 48	203	200	West Newbury, .	4 73
177	141	Buckland, .	5 44	211	201	Barnstable, .	4 72
140	142	Woburn, .	5 43	212	202	Becket, .	4 72
125	143	Northborough, .	5 42	265	203	North Reading, .	4 70
164	144	Westminster, .	5 42	195	204	Stow, .	4 68
134	145	Kingston, .	5 42	202	205	Fitchburg, .	4 67
149	146	Pittsfield, .	5 41	192	206	Peru, .	4 66
159	147	Harwich, .	5 41	221	207	Lawrence, .	4 64
156	148	Medford, .	5 41	273	208	Longmeadow, .	4 64
116	149	Rutland, .	5 40	219	209	Cambridge, .	4 63
190	150	Douglas, .	5 39	205	210	Winchester, .	4 63
228	151	North Andover, .	5 38	254	211	Salisbury, .	4 63
161	152	Hubbardston, .	5 32	179	212	Needham, .	4 62
108	153	Westhampton, .	5 31	237	213	Swansea, .	4 62
80	154	Holden, .	5 31	175	214	Charlton, .	4 60

SCHOOL RETURNS.

CXV

For 1906-1907, by the State valuation of 1906.	For 1907-1908, by the State valuation of 1907.	TOWNS AND CITIES.	Amount appropriated to the support of public schools for each thousand dol- lars of valuation.	For 1906-1907, by the State valuation of 1906.	For 1907-1908, by the State valuation of 1907.	TOWNS AND CITIES.	Amount appropriated to the support of public schools for each thousand dol- lars of valuation.
251	215	Princeton, .	\$4 58	315	275	Washington, .	\$3 82
171	216	Hawley, .	4 58	234	276	Worthington, .	3 81
197	217	Plymouth, .	4 57	285	277	Stockbridge, .	3 81
227	218	Cummington, .	4 57	290	278	Newton, .	3 80
182	219	Acton, .	4 56	271	279	Erving, .	3 80
249	220	Hyde Park, .	4 56	307	280	Hatfield, .	3 79
213	221	Deerfield, .	4 54	283	281	Watertown, .	3 79
193	222	Wales, .	4 54	214	282	Blandford, .	3 79
229	223	Gloucester, .	4 52	207	283	Dunstable, .	3 78
268	224	Rochester, .	4 50	275	284	Northfield, .	3 78
246	225	Wareham, .	4 50	280	285	Bedford, .	3 77
296	226	Rowe, .	4 50	266	286	Sharon, .	3 76
293	227	Phillipston, .	4 49	226	287	Marshfield, .	3 75
258	228	Richmond, .	4 48	289	288	Newburyport, .	3 78
241	229	Freetown, .	4 46	311	289	Carlisle, .	3 72
174	230	Easthampton, .	4 46	350	290	Greenwich, .	3 72
218	231	Windsor, .	4 44	274	291	Lancaster, .	3 71
124	232	Sandisfield, .	4 43	345	292	Lakeville, .	3 64
264	233	Enfield, .	4 43	286	293	Lenox, .	3 62
230	234	Salem, .	4 41	267	294	Southwick, .	3 61
185	235	Bolton, .	4 40	287	295	Newbury, .	3 58
238	236	Dedham, .	4 37	16	296	Prescott, .	3 55
184	237	Amesbury, .	4 37	281	297	Webster, .	3 53
163	238	Truro, .	4 37	303	298	Hancock, .	3 52
181	239	Russell, .	4 36	103	299	Heath, .	3 52
263	240	Southampton, .	4 35	309	300	Pembroke, .	3 50
239	241	Lynn, .	4 32	233	301	Edgartown, .	3 49
139	242	Brimfield, .	4 31	256	302	Beverly, .	3 48
261	243	Winthrop, .	4 31	288	303	Burlington, .	3 46
199	244	Dalton, .	4 30	298	304	Paxton, .	3 43
220	245	Easton, .	4 28	347	305	Holland, .	3 42
243	246	Belmont, .	4 24	310	306	Mattapoisett, .	3 41
255	247	Rowley, .	4 22	278	307	Gay Head, .	3 36
323	248	Plainfield, .	4 21	152	308	Whately, .	3 36
260	249	Fall River, .	4 20	306	309	Middleton, .	3 36
165	250	Dover, .	4 18	301	310	Shutesbury, .	3 34
292	251	Marblehead, .	4 14	257	311	Bourne, .	3 33
294	252	Scituate, .	4 13	318	312	Seekonk, .	3 32
262	253	Boxborough, .	4 12	297	313	Swampscott, .	3 27
305	254	Hanson, .	4 11	313	314	Yarmouth, .	3 21
247	255	Sterling, .	4 10	324	315	Westwood, .	3 19
245	256	Gill, .	4 09	276	316	Monroe, .	3 15
248	257	Waltham, .	4 04	300	317	Eastham, .	3 15
232	258	Hadley, .	4 01	308	318	Topsfield, .	3 14
253	259	New Bedford, .	4 00	337	319	Sherborn, .	3 07
272	260	Montgomery, .	3 99	319	320	Mashpee, .	3 06
242	261	Lunenburg, .	3 98	299	321	Alford, .	3 04
157	262	W. Brookfield, .	3 95	252	322	Carver, .	3 03
231	263	Hampden, .	3 94	312	323	Wellfleet, .	3 01
304	264	Halifax, .	3 93	317	324	Milton, .	3 00
339	265	New Braintree, .	3 92	316	325	Weston, .	2 99
295	266	Middlefield, .	3 92	325	326	Monterey, .	2 80
244	267	Berkley, .	3 89	321	327	Wellesley, .	2 77
259	268	Leyden, .	3 88	335	328	Falmouth, .	2 74
208	269	Harvard, .	3 88	236	329	Goshen, .	2 68
269	270	Medfield, .	3 88	322	330	Oakham, .	2 66
282	271	Leverett, .	3 86	336	331	Tisbury, .	2 64
277	272	Ipswich, .	3 86	328	332	Boston, .	2 63
332	273	Lynnfield, .	3 84	327	333	Nantucket, .	2 63
284	274	Groton, .	3 83	314	334	Hamilton, .	2 63

For 1906-1907, by the State valuation of 1906.	For 1907-1908, by the State valuation of 1907.	TOWNS AND CITIES.	Amount appropriated to the support of public schools for each thousand dol- lars of valuation.	For 1906-1907, by the State valuation of 1906.	For 1907-1908, by the State valuation of 1907.	TOWNS AND CITIES.	Amount appropriated to the support of public schools for each thousand dol- lars of valuation.
884	335	Hopedale, . . .	\$2 62	344	345	Hull, . . .	\$2 21
883	336	Oak Bluffs, . . .	2 58	346	346	Brookline, . . .	2 16
820	337	Duxbury, . . .	2 56	343	347	Boxford, . . .	1 96
802	338	Tyringham, . . .	2 52	349	348	Manchester, . . .	1 87
329	339	Cohasset, . . .	2 51	330	349	Marion, . . .	1 82
340	340	West Tisbury, . . .	2 49	352	350	Nahant, . . .	1 44
326	341	Plympton, . . .	2 46	353	351	New Ashford, . . .	1 30
331	342	Egremont, . . .	2 36	211	352	Chilmark, . . .	1 00
342	343	Lincoln, . . .	2 36	210	353	Pelham, . . .	80
348	344	Wenham, . . .	2 26	354	354	Gosnold, . . .	21

GRADUATED VALUATION TABLE.

Showing the different counties in the State, numerically arranged, according to the proportion of their taxable property appropriated for the support of public schools for the year 1907-1908.

For 1907-1908, by the State valuation of 1907.	COUNTIES.	Amount appropriated to the support of public schools for each thousand dol- lars of valuation.	Amount raised by local taxation and ex- cess of support diminished by contributions from other sources than local taxation.	Valuation of 1907.
1	Franklin,	\$5 73	\$158,103 06	\$27,585,650
2	Hampshire,	5 50	209,311 44	50,006,747
3	Berkshire,	5 45	395,155 37	72,534,791
4	Worcester,	5 34	1,462,761 72	273,982,823
5	Plymouth,	5 32	249,079 11	106,727,268
6	Hampden,	5 10	923,124 86	181,177,987
7	Middlesex,	5 07	3,009,903 85	594,236,814
8	Bristol,	4 50	992,744 35	220,426,013
9	Essex,	4 42	1,532,674 71	346,871,602
10	Barnstable,	4 04	113,432 96	28,060,287
11	Norfolk,	3 68	922,886 06	251,740,200
12	Suffolk,	2 75	3,749,561 30	1,364,813,257
13	Nantucket,	2 63	8,732 79	3,324,382
14	Dukes,	2 50	13,078 40	5,234,485

AGGREGATE FOR STATE.

State,	\$4 00	\$14,054,150 66	\$3,512,557,604
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III. GRADUATED ATTENDANCE TABLE.

In which all the towns in the State are numerically arranged according to the ratio of AVERAGE ATTENDANCE of children upon the public schools for the school year ending June, 1907, to the whole number of children in town between 5 and 15 years of age, September 1, 1907.

	TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, ex- pressed in decimals.		TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, ex- pressed in decimals.
1	Abington, .	469	859	1.83	42	Everett, .	5,846	5,818	1.00
2	Bernardston, .	110	121	1.10	43	Groton, .	315	313	.99
3	Hull, .	191	209	1.09	44	Gloucester, .	4,601	4,543	.99
4	Huntington, .	267	292	1.09	45	N. Attleborough, .	1,172	1,157	.99
5	Melrose, .	2,597	2,799	1.08	46	Mendon, .	143	141	.99
6	Braintree, .	1,261	1,355	1.07	47	Pepperell, .	585	576	.98
7	Swampscott, .	792	851	1.07	48	Foxborough, .	533	524	.98
8	Dedham, .	1,396	1,480	1.06	49	Framingham, .	1,931	1,894	.98
9	Tisbury, .	185	196	1.06	50	Winthrop, .	1,398	1,365	.98
10	Bridgewater, .	714	756	1.06	51	Wareham, .	543	530	.98
11	Wakefield, .	1,889	1,985	1.05	52	Rockport, .	814	794	.98
12	Dennis, .	279	293	1.05	53	Medfield, .	239	233	.97
13	Wellesley, .	774	812	1.04	54	Marblehead, .	1,140	1,111	.97
14	Manchester, .	398	416	1.04	55	Bourne, .	262	255	.97
15	Danvers, .	1,359	1,419	1.04	56	Wilmington, .	355	345	.97
16	Concord, .	900	928	1.03	57	Scituate, .	427	415	.97
17	Weymouth, .	2,028	2,077	1.02	58	Gay Head, .	35	34	.97
18	Reading, .	997	1,025	1.02	59	Marshfield, .	242	235	.97
19	Maynard, .	723	736	1.02	60	Upton, .	318	303	.97
20	Amherst, .	759	772	1.02	61	North Andover, .	793	767	.97
21	West Newbury, .	234	238	1.02	62	Merrimac, .	332	321	.97
22	Holbrook, .	488	496	1.02	63	Monson, .	656	634	.97
23	Gt. Barrington, .	938	953	1.02	64	Brookfield, .	359	345	.96
24	Barnstable, .	655	664	1.01	65	Brookline, .	3,614	3,464	.96
25	Provincetown, .	881	893	1.01	66	Dalton, .	609	583	.96
26	Orange, .	918	928	1.01	67	Topsfield, .	116	111	.96
27	Easton, .	906	915	1.01	68	Ashland, .	322	308	.96
28	Ayer, .	406	442	1.01	69	Shrewsbury, .	293	280	.96
29	Rockland, .	1,059	1,067	1.01	70	Middlefield, .	90	86	.96
30	Medway, .	408	411	1.01	71	Whitman, .	1,260	1,204	.96
31	Natick, .	1,629	1,641	1.01	72	Lenox, .	584	558	.96
32	Southborough, .	294	296	1.01	73	Norwood, .	1,446	1,380	.95
33	Essex, .	283	297	1.00	74	Stoneham, .	1,083	1,032	.95
34	Hingham, .	749	779	1.00	75	Ashfield, .	149	142	.95
35	Sandwich, .	214	215	1.00	76	Yarmouth, .	187	178	.95
36	Needham, .	796	796	1.00	77	Erving, .	179	170	.95
37	Shelburne, .	231	231	1.00	78	Hopedale, .	357	339	.95
38	Conway, .	194	194	1.00	79	E. Bridgewater, .	548	519	.95
39	Orleans, .	169	169	1.00	80	Cummington, .	131	124	.95
40	Holliston, .	448	447	1.00	81	Petersham, .	130	123	.95
41	Chatham, .	234	233	1.00	82	Holden, .	421	398	.95

SCHOOL RETURNS.

cxix

207	Halifax, . . .	83	81	267	Waltham, . . .	1,407	1,401	.74
208	Franklin, . . .	1,043	842	268	Woburn, . . .	3,463	2,559	.74
209	Ashburnham, . . .	362	291	269	Chesterfield, . . .	■	65	.74
210	Rowe, . . .	98	77	270	Clinton, . . .	2,416	1,782	.74
211	Hatfield, . . .	264	217	271	Southwick, . . .	175	129	.74
212	Worcester, . . .	22,680	8,273	272	Lee, . . .	727	535	.74
213	Barre, . . .	431	345	273	Sandisfield, . . .	98	72	.73
214	Malden, . . .	7,744	6,173	274	Westwood, . . .	241	177	.73
215	Cheshire, . . .	241	192	275	Sturbridge, . . .	348	255	.73
216	Shutesbury, . . .	49	39	276	Colrain, . . .	■	271	.73
217	Pembroke, . . .	191	152	277	N. Brookfield, . . .	509	372	.73
218	Andover, . . .	1,301	1,024	278	Peabody, . . .	■	■	.73
219	Dover, . . .	129	102	279	Prescott, . . .	59	43	.73
220	Lancaster, . . .	374	295	280	Russell, . . .	179	130	.73
221	Mattapoisett, . . .	219	173	281	Granville, . . .	168	121	.73
222	Southampton, . . .	■	124	282	Tyngsborough, . . .	140	■	.73
223	Worthington, . . .	104	82	283	Westport, . . .	507	365	.73
224	Lynnfield, . . .	118	98	284	Lowell, . . .	1,400	10,400	.73
225	Swansea, . . .	309	242	285	Quincy, . . .	7,258	5,201	.73
226	Marlborough, . . .	2,923	2,287	286	Savoy, . . .	95	68	.73
227	Lunenburg, . . .	230	172	287	Boxford, . . .	105	75	.71
228	Newbury, . . .	230	172	288	Brimfield, . . .	■	104	.71
229	Egremont, . . .	87	68	289	Agawam, . . .	548	390	.71
230	Attleborough, . . .	2,521	1,966	290	North Reading, . . .	166	118	.71
231	Duxbury, . . .	208	162	291	Westhampton, . . .	114	81	.71
232	Carver, . . .	208	162	292	Leominster, . . .	2,778	1,965	.71
233	Stoughton, . . .	991	771	293	Hawley, . . .	92	65	.71
234	Boylston, . . .	126	98	294	Wendell, . . .	102	72	.71
235	Taunton, . . .	5,638	4,377	295	Blandford, . . .	91	64	.70
236	Uxbridge, . . .	799	617	296	Middleton, . . .	185	130	.70
237	Milford, . . .	2,100	1,621	297	Rehoboth, . . .	356	250	.70
238	Douglas, . . .	347	267	298	Pelham, . . .	96	67	.70
239	Berkley, . . .	172	132	299	Spencer, . . .	■	843	.70
240	Ipswich, . . .	886	680	300	Dartmouth, . . .	759	529	.70
241	Bellingham, . . .	313	240	301	Harvard, . . .	167	116	.69
242	Lynn, . . .	12,313	9,430	302	Palmer, . . .	1,415	■	.69
243	Plainfield, . . .	84	■	303	Lincoln, . . .	137	95	.69
244	Newburyport, . . .	2,361	■	304	Canton, . . .	831	570	.69
245	Westfield, . . .	2,461	1,873	■	E. Longmeadow, . . .	■	249	.69
246	Berlin, . . .	182	139	305	Richmond, . . .	■	■	.69
247	Watertown, . . .	1,927	1,467	306	Montgomery, . . .	85	24	.69
248	Enfield, . . .	171	129	307	Wenham, . . .	182	■	.68
249	Hancock, . . .	81	61	308	Bedford, . . .	185	126	.68
250	Haverhill, . . .	6,948	5,230	309	Hanson, . . .	286	194	.68
251	Raynham, . . .	270	203	310	Oak Bluffs, . . .	273	183	.68
252	Leverett, . . .	133	100	311	Mt. Washington, . . .	12	8	.67
253	Sunderland, . . .	■	121	312	Alford, . . .	51	34	.67
254	Brewster, . . .	112	■	313	Chilmark, . . .	36	24	.67
255	Phillipston, . . .	76	57	314	Adams, . . .	2,230	1,406	.67
256	Freetown, . . .	257	192	315	Gardner, . . .	2,217	1,465	.66
257	Dighton, . . .	337	239	316	Salisbury, . . .	287	189	.66
258	Templeton, . . .	720	536	317	Tewksbury, . . .	222	■	.66
259	Methuen, . . .	1,892	1,408	318	Monterey, . . .	84	55	.66
260	Rochester, . . .	164	122	319	Holland, . . .	17	11	.66
261	Warwick, . . .	121	90	320	Chicopee, . . .	3,515	■	.66
262	W. Brookfield, . . .	187	139	321	Clarksburg, . . .	279	182	.66

BOARD OF EDUCATION.

	TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.		TOWNS AND CITIES.	No. of children between 5 and 15 years of age in each town.	Average attendance upon school.	Ratio of attendance to the whole No. of children between 5 and 15, expressed in decimals.
323	New Braintree, .	100	65	.65	339	Lawrence, .	13,200	7,644	.58
324	Washington, .	60	39	.65	340	Ludlow, .	1,019	589	.58
325	Hyde Park, .	2,649	1,719	.65	341	Fall River, .	21,862	12,616	.58
326	North Adams, .	4,370	2,822	.65	342	Plympton, .	73	42	.58
327	Longmeadow, .	189	121	.64	343	Florida, .	113	65	.58
328	Lanesborough, .	138	88	.64	344	Hardwick, .	587	337	.57
329	W. Stockbridge, .	202	129	.64	345	Salem, .	7,072	4,417	.57
330	Rowley, .	324	206	.64	346	Fitchburg, .	6,785	3,799	.56
331	Tyringham, .	60	38	.63	347	Greenwich, .	88	49	.56
332	New Bedford, .	14,056	8,890	.63	348	Holyoke, .	10,460	5,609	.54
333	Whately, .	111	70	.63	349	Amesbury, .	1,632	866	.53
334	Becket, .	173	108	.62	350	Sutton, .	672	350	.52
335	Sherborn, .	225	179	.62	351	Tolland, .	36	17	.47
336	Ware, .	1,537	937	.61	352	Southbridge, .	2,155	978	.45
337	Auburn, .	472	283	.60	353	Dudley, .	809	333	.41
338	Peru, .	69	40	.58	354	Webster, .	2,010	685	.34

III. GRADUATED ATTENDANCE TABLE.

In which all the towns in the State are numerically arranged according to the ratio of AVERAGE ATTENDANCE of children upon the public schools for the school year ending June, 1907, to the whole number of children in town between 5 and 15 years of age, September 1, 1907.

	COUNTIES.	Ratio of attendance.		COUNTIES.	Ratio of attendance.
1	Barnstable, . . .	.97	9	Nantucket, . . .	.82
2	Plymouth, . . .	.94	10	Berkshire, . . .	.77
3	Franklin, . . .	.88	11	Essex, . . .	.75
4	Middlesex, . . .	.86	12	Worcester, . . .	.74
5	Norfolk, . . .	.86	13	Hampden, . . .	.71
6	Dukes, . . .	.84	14	Bristol, . . .	.67
7	Hampshire, . . .	.83			
8	Suffolk, . . .	.83		State, . . .	.80

INDEX.

INDEX.

	PAGE
Abstract of school committees' returns for 1907-08,	i-cxx
Academies and private schools, statistics relating to,	x-xcvi
Funds whose income must be appropriated to,	x-xcvi
Admission to school of beginners,	180, 181
Adult blind. <i>See</i> Blind.	
Agents of the Board, reports of. <i>See</i> Appendices.	
Work of,	156
Agricultural College, State, co-operates with North Adams State Normal School,	47-49
Agricultural education at North Adams State Normal School,	47-49
Aldrich, George I., report of, as chairman of board of visitors of Worcester State Normal School,	61-65
As chairman of board of visitors of Bridgewater State Normal School,	17-22
Allen, Edward E., director, Perkins Institution and Massachusetts School for the Blind, report of,	371-374
American School for the Deaf, report of Job Williams, principal of,	357, 358
Appendices: —	
A. Report of John T. Prince, agent of the Board,	173-192
B. Report of J. W. MacDonald, agent of the Board,	193-256
C. Report of Julius E. Warren, agent of the Board,	257-265
D. Report of Frederic L. Burnham, agent of the Board for the pro- motion of manual arts,	267-296
E. Industrial Education and the Public Schools, by George H. Martin,	297-316
F. Report of Visits to Normal Schools in Other States, by John G. Thompson,	317-328
G. An Outline in Elementary Geometry, by Brenelle Hunt,	329-353
H. Report on Special Schools for Deaf, Blind and Feeble-minded, com- piled by John T. Prince,	355-385
I. A Lesson from Medical Inspection of Schools, by George H. Martin,	387-394
J. County Training (Truant) Schools,	395-399
Appropriations, by cities and towns for the support of schools,	vi-xciv
For school buildings,	viii-xcv
Per child between five and fifteen years of age,	ci-cxii
Per child in average membership,	ci-cxii
Proportion of taxable property,	cxii-cxvi
Summary for 1907-08,	78-80
Art School. <i>See</i> Normal Art School, State.	
Attendance and graduation data for the school year,	ii-xcii
In high schools,	iv-xciii
Backward children, cities having classes for,	190
Baldwin, William A., principal, Hyannis State Normal School,	33
Schools abroad visited by,	33-35
Bartlett, George H., principal, State Normal Art School,	66-70

	PAGE
Blind, report of Perkins Institution and Massachusetts School for the Blind,	371-374
Adult blind, expenditures by State for education of,	167
Report on instruction of, at their homes,	374-377
Census of, difficult to obtain,	191
Board of Education, annual report of, seventy-second,	9-14
Agents of, work of,	156
Industrial education in the public schools,	12-14
Members of, names of,	5
Normal schools, State,	9-12
Industrial education in,	10, 11
Bockée, Martha O., principal, New England Industrial School for Deaf Mutes,	357
Books, free text-books, expenditures for,	vi-xciv
Boston Parental School, location and attendance,	397, 398
Boston School for the Deaf, report by Thomas Magennis, superintendent,	368-371
Boyden, Arthur C., principal, Bridgewater State Normal School,	17
Bridgewater State Normal School, admission and attendance data,	71
Appropriation and expenditures for,	160
Candidates for admission, selection of,	18, 19
Dormitories, needs of,	20, 21
Instructors in, with branches of study,	17
Changes in,	17, 18
Loan fund for students,	21
Natural science garden,	20
Spirit of the school,	20
Statistics of,	21, 22
Training in, opportunities for,	20
Vocational training in,	19, 20
Visitors' report of,	17, 22
Brodeur, Clarence A., principal, Westfield State Normal School,	57
Buildings. <i>See</i> Schoolhouses.	
Burnham, Frederic L., agent of the Board for the promotion of manual arts, annual report of,	267-297
Manual arts in the high schools, supervision and teaching of,	270-296
Aims of,	289-291
Courses in, four outlines submitted, showing what is being done,	275-287
Outline planned to meet various purposes,	293-296
Work of, for the year 1908,	269, 270
Business courses in high schools,	111-127
Increase in,	112
Letters from principals of schools concerning,	113-127
Cabot, Mrs. Ella Lyman, report of, as chairman of board of visitors of Salem State Normal School,	51-56
As visitor to the Worcester State Normal School,	65
Carter, Franklin, report of, for the corporation of the, of Clarke School for the Deaf,	358-360
Children, average cost of schooling,	ci-cxii
Backward and mentally deficient, classes for,	190
Enrollment and attendance data upon public schools,	li-xcii
Clark, Eliza L., principal, Sarah Fuller Home for Little Deaf Children,	357
Clarke School for the Deaf, extract from report of principal of,	360-363
Industrial training in,	362, 363
Coburn, Frank F., principal of Lowell State Normal School, death of,	39
College aid, funds for beneficiary purposes,	85-87
Collegiate education, cost of,	83, 84

	PAGE
Collegiate, technical and professional instruction, free system of, the next step,	83, 84
Commercial instruction, at Salem State Normal School,	53
Questionnaire and answers relating to,	111-127
Conveyance of children to school, complaints investigated,	187-189
Cost of,	vi-xciv
Interests of children should be safeguarded,	188
Cost of public schools. <i>See</i> Expenditures for public schools.	
County training (truant) schools. <i>See</i> Training schools, county.	
Courses of studies, elementary schools, length of,	178-180
Manual arts in the high schools,	275-296
Crippled and deformed children, Massachusetts Hospital School for, report on,	381-385
Crocker, Willard, medical inspector of schools, Foxborough, table of results given by,	95, 96
Deaf, census of, difficult to obtain,	191
Expenditures by State, for instruction of,	168-170
Report on schools for, compiled by John T. Prince,	357-371
Defective and delinquent children,	190-192
Classes for,	190
Delinquent children, individual care needed for,	191, 192
Dental Council, Massachusetts, travelling exhibit and lectures by,	96
Dog tax and other income expended on the public schools,	viii-xcv
Drawing in the public schools. <i>See</i> Manual arts.	
Durgin, Cyrus A., principal, Lowell State Normal School, election of,	39, 40
Educational opportunities, equalization of,	82, 83
Elementary schools, admission of beginners,	180, 181
Length of course in,	178-180
Promotions in,	181-183
English, teaching of, in the high school,	251-256
Evening schools, attendance, teachers, etc., statistics of,	xcvii
Table showing kind of instruction in,	129
Expenditures for public schools,	vi-xcv
For buildings,	viii-xcv
For each child in the average membership, etc.,	ci-cxii
For support of schools,	vi-xciv
Summary of,	75-81
Eye and ear tests in the public schools,	89, 90
Feeble-minded, Massachusetts School for, extracts from report of the superintendent,	377-381
Fernald, Walter E., superintendent, Massachusetts School for Feeble-minded,	357, 377-381
Financial statements: —	
Board of Education,	160-170
Adult blind,	167
Agents' travelling expenses,	164, 165
Deaf children, instruction of,	168-170
Incidental expenses,	166
Institutes for teachers,	166
Medical inspection of schools,	168
Members of the Board, expenses of,	167
Normal school pupils, aid to,	165
Registers and census books,	168
Salaries of secretary, agents and clerks of,	164
Massachusetts school fund,	159

	PAGE
Fish, John E., superintendent, Massachusetts Hospital School,	357
Report of,	383-385
Fitchburg State Normal School, admission and attendance, etc., data,	71
Appropriation and expenditures for,	161
Growth of,	23, 24
Instructors in, with branches of study,	23
Kindergarten, course in,	24
Library instruction in,	25
Manual arts building, new,	26
Professional improvement,	27
Report of principal of,	23-28
School gardens, work in,	25
Statistics of,	27, 28
Fitzpatrick, Thomas B., report of, as chairman of board of visitors of Lowell	
State Normal School,	38-42
As visitor to the Framingham State Normal School,	29-32
As visitor to State Normal Art School,	66-70
Framingham State Normal School, admission and attendance, etc., data,	71
Appropriation and expenditures,	161
Crocker Hall, changes in,	30
Gifts to,	31, 32
Household arts department,	31
Instructors in, with branches of study,	29
Changes in,	30
Lectures at,	31
Management of, in general,	29, 30
Needs of the school,	31
Statistics of,	32
Visitors' report of,	29-32
Fuller, Sarah, principal, Horace Mann School for the Deaf,	363
Fund, Massachusetts School, financial statement,	159
Towns' share of,	x-xcvi
Geometry, elementary, an outline in, Brenelle Hunt,	329-353
High schools, business courses in,	111-127
Language instruction in, report on, by J. W. MacDonald,	193-256
Courses, as measured by recitations, table of,	196-228
English,	251-256
Latin,	232-250
Spanish,	229
State aid to, and reimbursement of tuition,	132-139
Horace Mann School for the Deaf, report of Walter S. Parker,	363-365
Hospital School, Massachusetts, at Canton, extracts from report of trustees	
and superintendent,	381-385
Household arts department, Framingham State Normal School,	31
Hunt, Brenelle, outline in elementary geometry, prepared by,	329-353
Hyannis State Normal School, admission and attendance, etc., data,	71
Appropriation and expenditures for,	161
European estimate of,	35
Instructors in, with branches of study,	33
Changes in,	33
Money for repairs returned to State treasury,	36
Principal of, account of schools visited abroad,	33, 34
Repairs,	36
Statistics of,	36
Summer session,	37
Visitors' report of,	33-37

	PAGE
Hygiene, instruction in public schools,	111
<i>See also</i> Medical inspection of schools.	
Illiterate minors, number of,	76
Industrial courses at North Adams State Normal School,	44-47
"Industrial Education and the Public Schools," an address by George H. Martin,	297-316
Industrial education in the public schools,	12-14
Reasons for extending and broadening,	262-264
Report on, by J. E. Warren,	259-265
State help needed to enable towns to provide,	264, 265
Work accomplished,	259-262
Industrial School for Deaf Mutes, New England, report on,	366-368
Industrial School for Girls, Lancaster,	xcviii
Institutes, teachers', location of, date, members, etc., table of,	128
Lancaster, State Industrial School for Girls,	xcviii
Language instruction in the high schools of Massachusetts, special report on, by James W. MacDonald,	193-256
Latin, teaching of, in high schools,	232-250
Library instruction in Fitchburg State Normal School,	25
Lowell State Normal School, admission, attendance, etc., data,	71
Alumni association,	41
Appropriation and expenditures for,	163
Coburn, Frank F., principal of, death of,	39
Durgin, Cyrus A., principal of, appointment of,	39, 40
Gifts to,	42
Imperative needs,	42
Industrial training at,	41
Instructors in, with branches of study,	38
Changes in,	39, 40
Lectures,	41
Rural school in connection with,	40, 41
Statistics of,	42
Visitors' report of,	38-42
Lyman School for Boys, Westborough,	xcviii
MacDonald, James W., annual report of,	193-256
Language instruction in the high schools, with table,	193-256
Courses, length of, as measured by recitations per year,	196-228
English,	251-256
Latin,	232-250
Magennis, Thomas, report of Boston School for the Deaf, by,	368-371
Mann, Horace, quotation from report of, in relation to money making,	315
Manual arts building, new, at Fitchburg,	26, 27
Manual arts in the high schools, special report on, by Frederic L. Burnham,	270-296
Aims of, defined,	289-291
Conference on, held at State normal schools,	273
Courses in, classification of,	275-287
Design, definition of,	291-293
Manual training, an element of industrial education,	312
Martin, George H., "A Lesson on Medical Inspection of Schools," address by,	387-394
"Industrial Education and the Public Schools," address by,	297-316
Report of, as secretary of the Board of Education,	73-156
Massachusetts Agricultural College, co-operates with North Adams State Normal School,	47-49
Massachusetts Dental Council, travelling exhibit and lectures by,	96
Massachusetts Hospital School at Canton, extracts from reports of trustees and superintendent of,	381-385

	PAGE
Massachusetts School for Feeble-minded, extracts from the report of super- intendent of,	377-381
Medical inspection of schools, a lesson from, address by George H. Martin,	387-394
Medical inspection of schools,	87-109
Boston and Worcester, statistics in regard to,	90, 91
Children suffering, number of, disclosed by,	90, 91
Expenditures by the State for,	168
Eye and ear tests,	89, 90
Limitations in school work disclosed by,	91-93
Teeth, examination of,	93-96
Results reported by Willard Crocker, Foxborough,	95, 96
Tuberculosis, and its prevention,	96-107
Miller, J. D., member, board of visitors of Salem State Normal School,	56
Murdock, Frank F., principal, North Adams State Normal School,	43
New England Industrial School for Deaf Mutes, extracts from reports of trustees and principal of,	366-368
Normal Art School, State, admission, attendance, etc., data,	71
Afternoon sessions of,	67
Appropriation and expenditures for,	164
Design of,	69
Enlarged facilities required,	11, 12
Establishment of, reason for,	11, 12
Evening classes in,	66, 67
Gifts to,	69
Instructors in, with branches of study,	66
Wide reputation of,	68
Model school needed in connection with,	67, 68
Practice facilities of,	67, 68
Statistics of,	69
Visitors' report of,	66-70
Normal schools, aid to pupils in,	165
Admissions, attendance, etc., data,	71
Appropriations and expenditures for,	160-164
Design of,	326
Industrial work in,	10, 11
Observation and practice in,	322-325
In rural schools,	9, 10
Special report on visits to, in other States, by John G. Thompson,	317-328
Visitors' reports of,	15-70
North Adams State Normal School, admission, attendance, etc., data,	71
Agricultural education in,	47-49
Appropriation and expenditures for,	162
Extension work connected with,	49
Industrial courses in,	44-47
Instructors in, with branches of study,	43
Changes in,	44
Principal of, report of,	43-50
Statistics of,	49, 50
Organization of schools and supervision,	175-183
Out-door class for children showing signs of incipient tuberculosis,	107-109
Parker, Walter S., report by, on Horace Mann School for the Deaf,	363-365
Perkins Institution and Massachusetts School for the Blind, report of Edward E. Allen, director,	371-377
Pitman, J. Asbury, principal, Salem State Normal School,	51
Playgrounds, act of 1908, to provide for, in cities,	109, 110
Cities voting on,	110

	PAGE
Primary and grammar schools, admission of beginners,	180, 181
Length of course,	178
Promotions,	181-183
Prince, John T., annual report of, as agent of the Board,	173-192
Conveyance of children to school,	187-190
Defective and delinquent children,	190-192
Elementary schools, admission of beginners,	180
Length of course in,	178-190
Promotions,	181-183
Kindergartens, age limit, readjustment of course, etc.,	175, 176
School organization and supervision by,	175
Special schools, report on, compiled by,	355-385
Sub-primary classes,	176-178
Superintendents of schools, powers and duties of,	183-187
Promotions in elementary schools,	181-183
Richmond, Clinton Q., visitor to Westfield State Normal School,	60
As visitor to Westfield State Normal School,	57-60
Russell, E. Harlow, principal, Worcester State Normal School,	61
Salem State Normal School, acknowledgments,	54
Admissions, attendance, etc., data,	71
Appropriation and expenditures for,	162
Commercial department,	53, 54
Edwards, Richard, first principal of, death of,	55
Improvement of grounds,	54, 55
Instructors in, with branches of study,	51
Changes in,	52
Lectures and entertainments,	54
Rural school in connection with,	53
Statistics of,	55, 56
Visitors' report of,	51-56
Sarah Fuller Home for Little Deaf Children, extract from twentieth annual report of,	365, 366
School census data,	ii-xcii
School garden work at Fitchburg State Normal School,	25
Schoolhouses, new, cost of,	viii-xcv
School hygiene, instruction in,	111
School returns, abstract of statistics of,	i-cxx
Summary of,	75-81
Secretary of the Board of Education, George H. Martin, annual report of, seventy-second,	73-156
Business courses in high schools,	111-127
College aid,	85, 86
Educational opportunities, collegiate, technical and professional, Equalization of,	84-87 82, 83
Evening schools, instruction beyond elements in,	129
High schools, State aid and reimbursement of tuition in,	132-139
Hygiene, school instruction in,	111
Kindergartens, table showing location, attendance, etc.,	130, 131
Medical inspection,	87-109
Eye and ear tests, results,	89, 90
Limitations on school work, disclosed by,	91-93
Number of children suffering, disclosed by,	90, 91
Playgrounds, act of 1908, relating to, and cities voting,	109, 110
School statistics, significance of,	81
Teeth, examination of,	93-96
State scholarships,	84

	PAGE
Secretary of the Board of Education, George H. Martin, annual report of, seventy-second — <i>Continued</i> .	
Summary of statistics, 1907-1908,	75-81
Superintendents of schools,	139-156
Teachers' institutes, table of,	128
Tuberculosis, and its prevention,	96-109
Vacation schools, table of,	131
Spanish, teaching of, in the high schools,	229
Special schools: American School for the Deaf; Boston School for the Deaf; Clarke School for the Deaf; Horace Mann School for the Deaf; Massachusetts School for the Feeble-minded; New England In- dustrial School for Deaf Mutes; Perkins Institution and Massa- chusetts School for the Blind; Sarah Fuller Home for Little Deaf Children; Training (Truant) Schools, County; Massachu- setts Hospital School, report on, compiled by John T. Prince,	355-385
State aid, to high schools,	132-139
For pupils in normal schools,	165
For superintendency unions,	147-155
For support of schools, State school fund,	x-xcvi
Statistics, abstract of school committees' returns for 1907-08,	i-cxx
Counties and towns alphabetically arranged to show:	
First: (a) population of cities and towns; (b) valuation of cities and towns; (c) number of public schools; (d) persons between five and fifteen years of age; (e) persons between seven and fourteen years of age; (f) membership and attendance data for the school year; (g) number of graduates from grammar schools; (h) re- capitulation by counties,	ii-xcii
Second: (a) different teachers required, number of; (b) college grad- uates and normal graduates employed, number of; (c) wages of teachers, average per month; (d) length of schooling; (e) high schools, statistics of; (f) recapitulation by counties,	iv-xciii
Third: (a) expenditures for the support of schools, including only (1) teachers' wages, (2) conveyance of pupils, (3) fuel and care of school premises, (4) supervision by school committees, including clerical aid and truant service, (5) supervision by superintend- ents, (6) text-books and school supplies, (7) school sundries; (b) amount derived from other sources than local taxation and ex- pended for the support of schools; (c) amount raised by local taxation and expended for the support of schools; (d) recapitu- lation by counties,	vi-xciv
Fourth: (a) expenditures for new schoolhouses, for alterations and re- pairs; (b) amount derived from other sources than local taxation and expended for school buildings; (c) amount raised by local taxation and expended for school buildings; (d) amount raised by local taxation and expended for all school purposes; (e) local funds whose income must be appropriated to the public schools; (f) dog tax and other income voluntarily appropriated to public schools; (g) recapitulation by counties,	viii-xcv
Fifth: (a) town's share of school fund income; (b) amount of volun- tary contributions expended on the public schools; (c) academies and private schools; (d) estimated amount of tuition paid in academies and private schools; (e) funds whose income must be appropriated to academies and private schools; (f) recapitula- tion by counties,	x-xcvi
Evening schools: (a) number of; (b) attendance; (c) time; (d) teachers; (e) expense,	xcvii

Statistics, abstract of school committees' returns for 1907-08 — *Continued.*

Graduated tables, explanation of,	xcix, c
I. Graduated taxation table, arranged to show: (a) amounts raised and expended by cities and towns for the support of schools; (b) amount expended per child between five and fifteen years of age; (c) amount expended per child in the average membership; (d) rank of cities and towns,	ci-cxii
II. Graduated valuation table, arranged to show: (a) proportion of taxable property appropriated for the support of public schools by cities and towns of State; (b) rank of cities and towns,	cxiii-cxvi
III. Graduated attendance table, arranged to show: (a) average attendance of children upon the public schools; (b) ratio of attendance to number of children between five and fifteen,	cxvii-cxx
Significance of,	81
Summary of,	75-81
Sub-primary classes, establishment recommended,	176-178
Summer session of Hyannis State Normal School,	37
Superintendency unions, date of formation, State aid, etc., table of,	147-155
Superintendent of schools, changes in ranks of,	139
Examination of, number approved,	141
Names of, with addresses, salaries, etc.,	141-146
Powers and duties of,	183-187
Teachers, average salaries per month,	ii-xciii
Teachers' institutes. <i>See</i> Institutes, teachers'.	
Teeth, examination of, in public schools,	93-96
Text-books, reference books, charts, etc., expenditures for,	vi-xciv
Thompson, John G., principal of Fitchburg State Normal School, report of,	23-28
Report of visits to normal schools in other States, by,	317-328
Tillinghast, C. B., financial statement, as treasurer of the State Board of Education,	160-170
Training (truant) schools, county, location of, with name of superintendent,	397
Name changed from County Training School, acts relating to,	398, 399
Places assigned by counties not required to keep,	397
Tuberculosis, out-door class for children affected with,	107-109
Suggestions to teachers regarding prevention of,	97-107
Vacation schools, in 1907, statistics of,	131
Valuation of State, per cent. expended for schools,	80, cxiii-cxvi
Vocational training, Bridgewater State Normal School,	19, 20
Voluntary contributions to public schools,	x-xcvi
Wages per month of teachers in the public schools,	iv-xciii
Warren, Julius E., agent of the Board of Education, annual report of,	257-265
Industrial education in the public schools,	259-265
Extension of, reasons for,	262-264
State help needed for,	264, 265
Work accomplished,	259-262
Wells, Mrs. Kate Gannett, report of, as chairman of board of visitors of State Normal Art School,	66-70
As visitor to Framingham State Normal School,	29-32
As visitor to Lowell State Normal School,	38-42
Westfield State Normal School, admission and attendance data,	71
Appropriation and expenditures for,	163
Improvements at,	58
Instructors in, with branches of study,	57
Changes in,	57, 58
Lectures at,	59
Statistics of,	59
Visitors' report of,	57-60

	PAGE
Whittemore, Henry, principal, Framingham State Normal School,	29
Williams, Job, report of, as principal of American School for the Deaf,	357, 358
Winship, Albert E., report of, as chairman of board of visitors of Westfield State Normal School,	57-60
Worcester State Normal School, admission and attendance, etc., data,	71
Appropriation and expenditures for,	163
Boarding accommodations needed,	64
Graduates of, employment of,	62
Instructors in, with branches of study,	61-65
Changes in,	64
Manual training at,	62, 63
Nature study,	63
School hygiene,	63
Sketch of year 1907-08,	61, 62
Statistics of,	65
Visitors' report of,	61-65
Wright, Carroll D., late member of board of visitors of State Normal Art School,	70
As visitor to Bridgewater State Normal School,	17-22
Yale, Caroline A., principal, Clarke School for the Deaf,	357



PERKINS INSTITUTION FOR THE BLIND.—MAIN BUILDING.



SEVENTY-SEVENTH ANNUAL REPORT

OF

THE TRUSTEES

OF THE

PERKINS INSTITUTION AND MASSACHUSETTS

SCHOOL FOR THE BLIND,

FOR THE

Year ending August 31, 1908.

BOSTON:
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THE STATE BOARD OF PUBLICATION.

Commonwealth of Massachusetts.

PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL FOR THE BLIND,
SOUTH BOSTON, October 22, 1908.

To the Hon. WM. M. OLIN, *Secretary of State*, Boston.

DEAR SIR: — I have the honor to transmit to you, for the use of the legislature, a copy of the seventy-seventh annual report of the trustees of this institution to the corporation thereof, together with that of the treasurer and the usual accompanying documents.

Respectfully,

EDWARD E. ALLEN,
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 Nickerson, Miss Priscilla, Bos-
 ton.
 Nickerson, S. D., Boston.
 Norcross, Grenville H., Boston.
 Norcross, Mrs. Otis, Jr., Boston.
 Noyes, Hon. Charles J., Boston.
 Oliver, Dr. Henry K., Boston.
 Paine, Robert Treat, Boston.
 Parkinson, John, Boston.
 Peabody, Rev. Endicott, Groton.
 Peabody, Frederick W., Boston.
 Peabody, Mrs. R. S., Boston.
 Peabody, S. Endicott, Boston.
 Perkins, Charles Bruen, Boston.
 Perkins, Mrs. C. E., Boston.
 Phillips, Mrs. John C., Boston.
 Pickman, D. L., Boston.

Pickman, Mrs. D. L., Boston.
 Pierce, Mrs. M. V., Milton.
 Pope, Mrs. A. A., Boston.
 Porter, Charles H., Quincy.
 Prendergast, J. M., Boston.
 Proctor, James H., Boston.
 Proctor, Mrs. T. E., Boston.
 Putnam, Mrs. James J., Boston.
 Quimby, Mrs. A. K., Boston.
 Rand, Arnold A., Boston.
 Rantoul, Robert S., Salem.
 Reardon, Dennis A., Boston.
 Reed, Mrs. Wm. Howell, Boston.
 Rice, Mrs. Henry A., Boston.
 Richards, Miss Elise, Boston.
 Richards, George H., Boston.
 Richards, Mrs. H., Gardiner, Me.
 Richardson, John, Boston.
 Richardson, Miss M. G., New
 York.
 Richardson, Mrs. M. R., Boston.
 Richardson, W. L., M.D., Boston.
 Roberts, Mrs. A. W., Boston.
 Robinson, Henry, Reading.
 Rogers, Miss A. P., Boston.
 Rogers, Miss Flora E., New York.
 Rogers, Henry M., Boston.
 Rogers, Mrs. William B., Boston.
 Ropes, Mrs. Joseph A., Boston.
 Russell, Mrs. H. G., Providence.
 Russell, Miss Marian, Boston.
 Russell, Mrs. Robert S., Boston.
 Russell, Mrs. W. A., North An-
 dover.
 Sabine, Mrs. G. K., Brookline.
 Saltonstall, Richard M., Boston.
 Sanborn, Frank B., Concord.
 Schaff, Capt. Morris, Pittsfield.
 Sears, David, Boston.
 Sears, Mrs. Fred. R., Jr., Boston.
 Sears, Mrs. Knyvet W., Boston.
 Sears, Mrs. P. H., Boston.
 Sears, Willard T., Boston.

Shaw, Mrs. G. Howland, Boston.
Shaw, Henry S., Boston.
Shepard, Harvey N., Boston.
Shepard, Mrs. T. P., Providence.
Sherwood, W. H., Boston.
Shippen, Rev. R. R., Brockton.
Slater, Mrs. H. N., Boston.
Sohier, Miss Emily L., Boston.
Sohier, Miss M. D., Boston.
Sorchan, Mrs. Victor, New York.
Spencer, Henry F., Boston.
Sprague, F. P., M.D., Boston.
Stanwood, Edward, Brookline.
Stearns, Charles H., Brookline.
Stearns, Mrs. Charles H., Brookline.
Stevens, Miss C. A., New York.
Sturgis, Francis S., Boston.
Swan, Mrs. Sarah H., Cambridge.
Taggard, Mrs. B. W., Boston.
Talbot, Mrs. Isabella W., Boston.
Tapley, Mrs. Amos P., Boston.
Thayer, Miss Adele G., Boston.
Thayer, Ezra R., Boston.
Thayer, Rev. G. A., Cincinnati, O.
Thayer, Mrs. Nathaniel, Boston.
Thorndike, Albert, Boston.
Thorndike, S. Lothrop, Boston.
Tilden, Miss Alice Foster, Milton.
Tilden, Miss Edith S., Milton.
Tilden, Mrs. M. Louise, Milton.

Tingley, S. H., Providence, R. I.
Tompkins, Eugene, Boston.
Torrey, Miss A. D., Boston.
Tuckerman, Mrs. C. S., Boston.
Turner, Miss A. W., Randolph.
Underwood, Herbert S., Boston.
Villard, Mrs. Henry, New York.
Vose, Miss Caroline C., Milton.
Warden, Erskine, Waltham.
Ware, Miss M. L., Boston.
Warren, J. G., Providence, R. I.
Warren, Mrs. Wm. W., Boston.
Watson, Thomas A., Weymouth.
Watson, Mrs. T. A., Weymouth.
Weld, Mrs. William F., Boston.
Wesson, J. L., Boston.
Wheelock, Miss Lucy, Boston.
Wheelwright, John W., Boston.
White, C. J., Cambridge.
White, Mrs. Charles T., Boston.
White, George A., Boston.
Whiting, Albert T., Boston.
Whitney, Miss Anne, Boston.
Whitney, Henry M., Brookline.
Williams, Mrs. H. C., South Framingham.
Winsor, Mrs. E., Chestnut Hill.
Winsor, James B., Providence.
Winthrop, Mrs. Thos. L., Boston.
Young, Mrs. Benjamin L., Boston.

SYNOPSIS OF THE PROCEEDINGS
OF THE
ANNUAL MEETING OF THE CORPORATION.

SOUTH BOSTON, October 14, 1908.

The annual meeting of the corporation, duly summoned, was held today at the institution, and was called to order by the president, Hon. Francis Henry Appleton, at 3 P.M.

The proceedings of the last meeting were read and approved.

The annual report of the trustees was read, accepted and approved, and ordered to be printed, together with the usual accompanying documents.

The annual report of the treasurer was read, accepted and ordered to be printed.

Mr. William Endicott reported in behalf of the Board of Trustees that the Trustees, after due consideration, had determined that the accommodations at South Boston for the purposes of the Institution were entirely inadequate for the present and future purposes of the Institution, and had further determined that it was desirable for the purposes of economy and for other reasons that the two branches of the Institution should ultimately be located together on some tract of land in the vicinity of Boston of sufficient area to accommodate the present and future purposes of both branches of the Institution, and with this in mind, the Trus-

tees were negotiating for the purchase of a tract of land in Watertown, formerly belonging to the Estate of Josiah Stickney, containing about 34 acres.

It was further reported that although the Trustees under the by-laws are advised that they have ample and full authority to proceed in completing the purchase and developing the property for the purposes of the Institution, they deem it advisable that the matter should be reported upon to the Corporation, and its doings in the matter ratified and approved, and

On motion it was

Voted: that the acts and doings of the Trustees looking to the acquisition and purchase of the said property be and hereby are ratified and approved, and that said Trustees be and hereby are authorized to do all acts and things requisite and necessary in completing the purchase of said property and developing the same for the purposes of the Institution, and in that connection to proceed from time to time in the matter of constructing such buildings as they may determine requisite and necessary and to do all other matters and things in connection with the removal of the Institution from South Boston at such times and in such manner as they deem to be for the best interests of the Institution.

Further voted: that in case for any reason the Trustees are not able to acquire and purchase the said Stickney estate, that they be and hereby are fully authorized to proceed in the acquisition of such other property as they may believe to be adapted for the said purposes of the Institution.

Mr. F. B. Sanborn offered two amendments to the foregoing resolutions, which were referred to the Trustees with full power.

The corporation then proceeded to ballot for officers for the ensuing year, and the following persons were unanimously elected: —

President. — Hon. Francis Henry Appleton.

Vice-President. — Amory A. Lawrence.

Treasurer. — William Endicott, Jr.

Secretary. — Edward E. Allen.

Trustees. — Francis Henry Appleton, Walter Cabot Baylies, William Endicott, James A. Lowell, Mrs. James J. Putnam, George H. Richards, Richard M. Saltonstall, and S. Lothrop Thorndike.

The following persons were unanimously elected members of the corporation: Dr. Henry K. Oliver, Miss Jennie M. Colby, Mrs. Mary Tappan Appleton, Mrs. Marian Cabot Putnam, Ezra R. Thayer and Mrs. Mary Duncan Fiske.

The meeting then adjourned.

EDWARD E. ALLEN,
Secretary.

REPORT OF THE TRUSTEES.

PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL FOR THE BLIND,
BOSTON, October 14, 1908.

To the Members of the Corporation.

LADIES AND GENTLEMEN:— As the chief burden of last year's report was the need of reconstruction, it is fitting to begin this year's by saying that the first steps toward rebuilding have been taken. After visiting a score of sites, we began negotiations last spring for a piece of land of about 34 acres on an elevation along the Charles River in Watertown. While papers have not actually been passed, it is expected that they soon will be. The property was once a beautiful estate, and it still bears many fine old trees. It is within six miles of the State House, readily approachable by train and trolley, and is altogether a most desirable site for us.

While we may not be able to reconstruct externally for several years, we have made a few internal changes in our old buildings worthy of mention. Some money has been spent in the girls' cottages for painting and refurnishing, a long delayed and much needed improvement. As the girls had no cottage sitting rooms, the dining rooms have been made into living rooms, to be so used except at meal times. The long, covered gallery bounding the girls' green has had a side removed

so that it now opens upon the green like a section of a cloister walk. Thus has the gallery been restored to use. The institution offices are now at the front of the main building, near the entrance and so accessible to all.

New leadership always means change of some kind, if only of emphasis, and a somewhat greater emphasis is being placed by Mr. Allen on matters of school hygiene. Following on modern lines, we begin the knowledge of our pupils and their needs by ascertaining their physical condition. Our physicians last year cheerfully gave the time needed for careful examination and measurements of each pupil, and their findings we have recorded on cards prepared for the purpose. Attending dentists, a pediatrician and an assistant oculist were appointed; adjustable desks and chairs were provided in certain classrooms. Adequate shower baths were introduced for the boys. Every boy not excused by the physician begins the day by going through a needle bath of about 70° temperature, immediately after getting up. This is simply the revival of an old custom of morning bathing at the institution. A similar large shower was also installed near the gymnasium, so that part of the gymnasium exercise is showering afterwards. Thus each boy has a cool shower every morning and a warm one four times a week.

All the gymnasium exercises for both girls and boys, that can properly be held in the open air, are held there. Our boys took part in May in an interscholastic contest with twelve other schools for the blind, each on its own grounds, we holding our meet at the kinder-

garten. Their time and opportunity for practice had been so limited here that they were at a great disadvantage, but while they did not win in any event they made creditable showing.

The added spirits induced by showering and competitive exercises need an outlet. This is provided for by the annexation of out of doors, alike at South Boston and Jamaica Plain, in both which places we have installed play apparatus that is in constant use by each school till we are the envy of the street boys (the most popular pieces just now are the two great plank swings, capable of holding ten boys or girls at a time); and by having teachers more and more with pupils in free time to lead in sports and play. This last innovation is capable of larger extension, and teachers will be engaged with the understanding that this is as much a part of their duties as classroom instruction. Somewhat better hygienic conditions and somewhat more time spent in play and voluntary exercise add zest to work in its turn. Pupils are assigned fewer hours in school and are expected to accomplish the same amount of work as formerly.

Fewer pupils are now studying music than were before, and those who are pursuing it are doing so with increased economy to themselves and the school. The music department of the whole institution has been reorganized under a single head, several instructors who resigned will not be replaced, a mixed chorus will absorb some of the excessive effort heretofore given to a full orchestra, and much less attention will be paid to the small instruments. All the music any pupil

ought to take will be fostered in him, but the effort to force it into him or out of him will cease. Definite normal instruction for our advanced piano pupils with private pupils of their own — children with sight — has begun and will be insisted on. Our music department has not offered these opportunities within recent years; and, when we consider that practically all the graduates of such a school as ours, who follow music as a livelihood, will teach rather than perform, it appears that the demands of the orchestra, which displaced several at least equally important lines of effort, should no longer be permitted to dominate.

A school for the blind does not have the time for every pursuit possible to its pupils. Thus, theoretical chemistry, a delightful study, has this year given way to a course in business principles: business may not become the calling of all our pupils, though it does of many, but so much of success in life depends upon business habits and methods that courses having for their end the understanding and practice of these qualities have been lately recommended to all our schools by no less a body than the American Association of Workers for the Blind.

Apropos of good business, we are now pushing new industries into our manual department, this past year the rush-bottoming of chairs. The boys and their teacher have made a lot of checker boards and men. In their shop there has been other interesting work done, such as the making up of strong piazza chairs, bought in the knocked-down condition, and seating and backing them with splint; the result being pieces of furniture

for the pupils' own sitting rooms. Will not the boys feel proprietorship in such of their arts and crafts work?

To stimulate habits of thrift the boys have been encouraged to start bank accounts with money earned at recaning chairs during odd hours, and twenty have already made deposits. All young people need capital when starting out in life; how much better to possess a little than to borrow.

Our school and its work are now so well known in this community it would seem as though there were a better and more economical way of keeping up this interest than through the weekly exhibitions once so necessary. These will be replaced by having the work of teacher and pupil so good that it may be always on exhibition. Visitors truly interested will be shown through the school and house at all times.

Instead of the usual miscellaneous exhibition and concert exercises, held in a large city auditorium, early in June, we gave in June a concert in Jordan Hall and on the last day of school had closing exercises at the institution. Nine boys and one girl then received diplomas.

Our three deaf-blind pupils have been here as last year. Thomas Stringer's future — he is now twenty-two years old — is something of a problem. The other two are still young and progressing in an interesting way, especially little Louis Yott whose progress in the acquisition of language presents a study in development that would attract uncommon attention were it new at this school.

We wish to commend the achievements of the department of piano tuning, the library and the printing office, the workshop for adults, and the work of teaching the adult blind in their homes. The library has not only added 85 titles to its special collection of literature on the blind but nearly 1000 embossed books, chiefly text books in Braille. It has circulated 2443 books in the school for voluntary reading and increased its outside circulation this year to 3060. For at least fifteen years our books have been borrowed in increasing numbers by blind people and read at their homes. Since 1904, when the free mailing concession went into effect, this outside circulation has consumed the greater part of the time of one librarian.

Many of these additions are the production of our own Howe Memorial Press whose energies this year have been devoted, first, to new equipment for book and pamphlet production in Braille, especially a stereotyper, having power attachment, and a wire stitching machine; and second, to the issuing of much new music, paper maps and a lot of select short stories for general reading. These latter appear in convenient pamphlet form in editions of 100; over 400 of them went into the homes of our outside readers last summer. The Howe Memorial Press will undertake more and more to serve as a supply house for appliances and reading needed by the blind of any age or station.

The workshop for adults has almost held its own during this year of general business depression, in spite of the fact that its running expenses have increased. It has new management which has been allowed and even

urged to enlarge the business; the resulting benefit naturally being that the eighteen blind workers this year have earned on an average \$400 each, which is a little more than usual. In asking the public to continue sending us their mattresses and chairs for repair and to buy their new mattresses of us, we are not seeking charity for our people; rather are we promising our patrons the same reliable work that we have always given them and at as reasonable a rate as they can secure elsewhere.

The four teachers who travel about to instruct and encourage the adult blind at their homes report a very successful year. The Director has studied this field of work as well as he has had time; in consequence it has been modified and distinctly improved in the direction of economy of the time and money spent on travel. It is a much needed work, and we are greatly interested in it; but whether it can be best done under our direction or that of the Mass. Commission for the Blind is a question. The number of blind persons reached in this way this year is 216.

Realizing as we do more and more each year that an institution for the blind cannot justly limit its scope to the youth who happen to attend it as pupils we are glad to coöperate with any and every agency in behalf of the blind which will coöperate with us; and we are gratified that our Director so conceives his own mission and that he has been able to work harmoniously with all such agencies. We must regard it as a privilege to be able to do this sort of thing; for whatever makes for the interest of a single blind child or man or woman is

alike our privilege and our duty to help on. Not for this reason only but because no such school can afford not to stand back of its worthy graduates do we offer to our present pupils this encouragement of hope for the future.

There seems no way so effective for the principal of a large school to get in touch with his charges as through sympathetic morning talks to the assembled household after chapel. In these he can acquaint them with a multitude of events, particularly events as they occur in the world of the blind, always a matter of peculiar interest with them. Mr. Allen is particular not to utilize this hour of inspiration and good feeling for discipline and correction. Another time is chosen for that office when it is necessary.

There are two ways of carrying on an institution for the blind, the impersonal and the personal. By the impersonal, as may be seen in some large institutions, the machinery may be splendidly run and finished products of a good kind turned out. Here, however, our Director prefers the personal method; the getting in touch with the individual and keeping in touch, being accessible at reasonable hours, not fenced off, being *in loco parentis* in fact and not in name only. When a superintendent assumes this attitude he gets a warm response which does away with any thought he may once have harbored that his pupils are unappreciative and ungrateful. The result, too, upon the pupils is of a higher, finer order. Mr. Allen believes he owes much of the success he had in Overbrook to this method of administration.

Our school has large graduate associations. These

can furnish the Director with real help. They have just responded splendidly, both as organizations and as individuals, to a request to send in personal data which the office has already entered upon special record cards.

We are gratified to be able to state that periodicals conducted in the interests of the blind have lately appeared in our country, all of them filling a want which has long been urgent. These are *The Outlook for the Blind*, a quarterly printed in common type, *The Matilda Ziegler Magazine*, *The Christian Record*, monthlies in embossed type, and *The Milwaukee Weekly Times*, also in embossed type.

At the close of the school year in June six teachers and the matron of the main building at South Boston voluntarily left our employ. All of these had given us years of faithful and efficient service, Mrs. Carlton, the matron, fourteen such years. The Perkins Institution has been fortunate in having good matrons.

We presented last year, as we have said, the urgent need which the Perkins Institution has to undergo radical reconstruction in the suburbs, and we called attention to our need of money for this purpose. We then supposed that during the year we might seek financial assistance from the state, as was done the previous year. But the times forbade such a request. However, we have acquired some little funds for the rebuilding. Upon our presenting the needs of the institution to the usual donors to its kindergarten department we induced these friends of the blind to make their contributions without restriction. \$5950.50 have come in, and a few large donors have removed restrictions

from sums given in other years and not already consumed in running expenses. Thus have been added \$9500. The late George F. Parkman has bequeathed to the Perkins Institution an amount stated to be \$50,000, and the recently ascertained residue from the J. Putnam Bradlee estate has added to the funds of the institution \$143,000 in cash, together with some stocks and bonds, and an equal sum to its kindergarten. Other bequests and donations of the kind are urgently needed before we can be free to begin the actual preparations for rebuilding. We cannot doubt that our friends who learn of our needs will speedily come to our aid in the way indicated, for as the Perkins Institution has been a source of pride to our community in the past so must it continue to be always.

The appeal which was sent out along with the report to all annual contributors to the kindergarten and to members of the Ladies' Auxiliary Society is here given.

PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL FOR THE BLIND.

SOUTH BOSTON, 1908.

The great work of Dr. Howe in the education of the blind has been nobly supplemented by the establishment of the kindergarten for younger children upon a liberal basis by Mr. Anagnos. So great was the zeal of Mr. Anagnos, ably seconded by the help of the Ladies' Auxiliary, that the gifts and legacies to the Perkins Institution secured by them have of late years been mostly restricted to the use of the kinder-

garten. By the receipt of a large legacy last autumn the kindergarten is now endowed for all needs of the near future.

The upper school at South Boston, on the contrary, is greatly in need of funds. It is barely able to make both ends meet. It is overcrowded, without room for playgrounds, inconvenient for administration, incapable of adaptation to the standard of modern schools for the blind, hampered by a high building with many stairs and not fire-proof. Dr. Howe contemplated its removal to the country and actually inspected various sites with that object in view. It is the unanimous opinion of the Trustees that it must be moved to better quarters as soon as possible.

Economy and efficiency of management will ultimately necessitate the bringing together of both departments. Any such change of the kindergarten, when found necessary, can be made with funds now in hand.

Under these circumstances the Trustees, deeply grateful for your past aid to the kindergarten, feel that they have no right to ask for further gifts at the present time to that department; but the very children who have enjoyed modern advantages there, pass, while still of tender years, to the higher school at South Boston, where there is now need as urgent as that which stirred Mr. Anagnos twenty-one years ago to devote his untiring energies to the little children.

We earnestly appeal to you, therefore, to continue your assistance to these children after their promotion by sending your gift, and urging others to do the same, to the corporation without restrictions of any sort, so that it may be applied where there is the greatest need and where it will do the most good. The expenses of the proposed development will be large and we shall be very grateful for donations large or small.

This appeal is made after consultation with the Ladies' Visiting Committee to the kindergarten and with their hearty approval.

For the Trustees,

EDWARD E. ALLEN,

Secretary.

For the Ladies' Visiting Committee to the Kindergarten,

Mrs. JOHN CHIPMAN GRAY,

President.

I trust that this appeal will meet with a prompt and generous response from the friends of the blind and the lovers of humanity.

JULIA WARD HOWE.

The number of blind persons registered in the several departments of the institution on the first of October, 1908, was 327, a gain of ten over the corresponding date of the previous year, representing the admission of 47 and the discharge of 37 in the course of the year. This enrolment includes 86 boys and 89 girls in the South Boston school and 62 little boys and 57 little girls in the Jamaica Plain departments. Besides the pupils there are 13 teachers, officers or other employees and 20 adult workers in the shop under our management.

The general health has been good. Three pupils have died: one of blood poisoning, following erysipelas, one of cerebro-spinal meningitis, both at the Massachusetts General Hospital, and one of cerebral hemorrhage at the institution.

DEATH OF MEMBERS OF THE CORPORATION.

Mrs. ELLEN SEARS, widow of Gen. John F. Anderson; Miss MARY E. CHEEVER; CHARLES H. DALTON; CHARLES PERKINS GARDINER, who was also a trustee of the institution; EDWARD JACKSON; ANDREW NICKERSON; JOHN S. PALMER of Providence; GEORGE F. PARKMAN; QUINCY A. SHAW; HENRY SIGOURNEY; Miss ELIZABETH DEXTER SOHIER; Mrs. EMILY S., widow of Mahlon D. Spaulding; RICHARD SULLIVAN; EUGENE VAN R. THAYER; RICHARD HARDING WELD; ANDREW C. WHEELWRIGHT; and Miss MARY WHITEHEAD.

All of which is respectfully submitted by

FRANCIS HENRY APPLETON,
WALTER CABOT BAYLIES,
WILLIAM ENDICOTT,
PAUL REVERE FROTHINGHAM,
N. P. HALLOWELL,
JAMES ARNOLD LOWELL,
MARIAN CABOT PUTNAM,
GEORGE H. RICHARDS,
WILLIAM L. RICHARDSON,
ANNETTE P. ROGERS,
RICHARD M. SALTONSTALL,
S. LOTHROP THORNDIKE,

Trustees.

ACKNOWLEDGMENTS.

I. — ACKNOWLEDGMENTS FOR CONCERTS, RECITALS AND PLAYS.

To Maj. HENRY LEE HIGGINSON, through Mr. Fred R. Comee, for thirty tickets for the course of symphony concerts in Sanders Theatre, Cambridge.

To the CECILIA SOCIETY, through its secretary, Mr. Francis A. Shove, for twenty-five tickets for each of its two concerts.

To Prof. CARL FAELTEN, for ten tickets for a recital at the Faelten Pianoforte School.

To Mr. BEN GREET, through Mr. O. A. Mills, for fifty tickets for a performance of "The Merchant of Venice."

To Mr. HIRAM G. TUCKER, through Mr. George M. Weale, for fifty tickets for each of the concerts of the Boston Singing Club.

To Mr. JACQUES HOFFMANN, for forty tickets for a concert by the Hoffmann Quartet.

To Mr. RICHARD NEWMAN, for eighteen tickets for a recital by the Carolyn Belcher String Quartet.

To Mr. LENOM, for eight tickets for a concert by the Longy Club.

To Mr. ALBERT DEBUCHY, for ten tickets for one and twenty tickets for another of his concerts at Jordan Hall.

To Mr. FELIX FOX, for twenty-one tickets for his recital at Steinert Hall.

To Prof. H. J. KRUMPELN, for six tickets for his organ recital at the Central Congregational Church, Jamaica Plain.

To Miss GERTRUDE HOWES, for fifteen tickets for a concert by the Sir Galahad Guild in Ford Hall.

To Miss ELEANORE SOULE HAYDEN, for twenty-nine tickets for a concert in Durrell Hall, Cambridge.

To Mr. FRANCIS V. WEAVER, for fifteen tickets for his recital at Jordan Hall.

To Miss EDITH DALTON, for thirteen tickets for a concert by the Chromatic Club.

To Mrs. LANGDON FROTHINGHAM, for two tickets for a concert in behalf of the Morgan Memorial.

To Mr. RALPH FLANDERS, for fifteen tickets for a recital by Madame Samaroff.

To Dr. F. W. STUART, for fifty tickets for a concert by the Orpheus Club.

To Mr. RALPH W. GIFFIN, for twelve tickets for a concert by himself and Mr. J. H. Lindsay at Steinert Hall.

To Mr. LESLIE HARRIS, for a general invitation for his readings at Jordan Hall.

To the MUSIC DEPARTMENT of Boston, for fifty tickets for each of three municipal concerts at the South Boston High School.

To Mrs. M. H. A. EVANS, for twelve tickets for a concert by young ladies of Boston University.

To Mrs. E. S. GOULSTON, for six tickets for a concert at Colonial Theatre under the auspices of the Council of Jewish Women.

To Mr. A. W. ROGERS, for a general invitation to attend the Food Fair.

II. — ACKNOWLEDGMENTS FOR RECITALS GIVEN IN OUR
HALL.

To Mr. CHARLES D. KELLOGG, for a nature talk.

To Prof. ARLO BATES, for a lecture on Oliver Goldsmith.

To Miss LOUELLA WITHERILL DEWING, for a pianoforte recital.

III. — ACKNOWLEDGMENTS FOR PERIODICALS AND NEWS-
PAPERS.

The N. E. Journal of Education, The Atlantic, Youth's Companion, Our Dumb Animals, The Christian Register, The Missionary Herald, The Well-Spring, Woman's Journal, St. Nicholas, Collier's Weekly, American Annals of the Deaf, The Étude, The Mentor, Daily Advocate, The Silent Worker, The California News, The Ohio Chronicle, The Michigan Mirror, The Tablet, The Washingtonian, The Colorado Index, The Sunday-School Weekly (embossed), The Matilda Ziegler Magazine for the Blind (embossed), Christian Record (embossed).

IV. — ACKNOWLEDGMENTS FOR SERVICES AND GIFTS TO THE
KINDERGARTEN.

Dr. E. A. CROCKETT, Dr. A. W. FAIRBANKS and Dr. F. I. PROCTOR, for professional services.

MASSACHUSETTS GENERAL HOSPITAL, MASSACHUSETTS CHARITABLE EYE AND EAR INFIRMARY, FAULKNER HOSPITAL and CHILDREN'S HOSPITAL, for care and treatment of pupils.

Miss HELEN W. AUBIN and Miss LUCY W. DAVIS, for the entertainment of a pupil at the Children's Island Sanitarium at Marblehead.

Mrs. WALTER C. BAYLIES and Miss MARY CARLETON LEARNED, for gifts of money.

Mr. and Mrs. LAEZ ANDERSON, for Christmas entertainment and gifts.

The HERFORD CLUB of the Arlington Street Church and Dr. JOHN DIXWELL, curator of the Hospital Music Fund, for musical entertainments and flowers.

Rev. M. R. DEMING, for an outing at the Lakeshore Home in Sharon.

Mrs. THOMAS MACK, for two pictures, a sleigh-ride, fruit and ice-cream.

Mrs. JOHN CHIPMAN GRAY, for fruit, confectionery and Easter eggs.

Mrs. PRESCOTT BIGELOW, The Misses SLOCUM of Jamaica Plain, Mrs. GILBERT PATTEN of Bath, Mr. FRANK McLAUGHLIN and Mr. C. B. R. HAZELTINE, for fruit and vegetables.

Miss ISABEL H. MURRAY, Mrs. FERNANDO HEALY, Mrs. EDWARD T. TANSEY and Mrs. SCILLERS, for confectionery.

Mrs. HEALY and Mrs. LEW C. HILL, for valentines.

Miss ISABEL BIXBY, Mrs. GEORGE DRAPER and Mrs. HAROLD CHESSEON, for ice-cream and cake.

Miss E. G. ATWOOD of Somerville and the JUNIOR AID SOCIETY of Westborough, for clothing.

The UNITARIAN CHURCH of Jamaica Plain, for potted plants.

Mr. C. B. R. HAZELTINE and Miss HARRIET B. HAZELTINE, for books for the library.

Mr. G. W. SAMMET of Jamaica Plain, for games.

Publishers of the JAMAICA PLAIN NEWS, for the paper.

LIST OF PUPILS AT SOUTH BOSTON.

Abbott, Edna M.	Flardo, Rena.
Addelson, Bessie.	Gilman, Lura.
Anderson, Elizabeth D.	Golder, Gertrude.
Bailey, Minnie.	Goldrick, Sophie E.
Baird, Gertrude.	Goullaud, E. Edna.
Baker, Mary M.	Gray, Nettie C.
Barrabessi, Lucy.	Hayden, Ruth R.
Benoit, Josephine.	Healey, Mary J.
Boland, Annie.	Hill, Cecilia.
Burke, Norah.	Hill, Lila N.
Burns, Nellie.	Holbrook, Carrie F.
Clarke, Helen F.	Hollowell, Alice G.
Cody, Rachel.	Houghton, Elizabeth M.
Crockett, Marion S.	Ingham, Beatrice E.
Crossman, Mary M.	Johnson, Ellen T.
Cummings, Elsie M.	Jones, Louise.
Curran, Mary I.	Keegan, Margaret M.
Daicy, Gertrude C.	Kelly, Catherine A.
Dart, M. Fernette.	Kennedy, Annie M.
Deveau, Evelyn M.	Kennedy, Nellie A.
Dodd, E. Elizabeth.	Keough, Annie K.
Driscoll, Margaret.	Knap, Mary G.
Dubreuil, Maria.	Langdon, Margarita.
Durant, Rose M.	Lawler, Helen H.
Finnegan, Alice.	Lawrence, Anna.
Fisher, Annie J.	Lincoln, Maud E.
Fisk, Mattie E. I.	Ljungren, Elizabeth.

McCabe, Jennie L.	Winitzky, Nellie.
McDuffie, Lottie A.	Barnard, Richard J. C.
McKenzie, Margaret.	Blood, Howard W.
McVay, Catherine.	Boutin, Joseph.
Merrick, Margaret.	Bradley, Clayton S.
Miller, A. Marion.	Bragdon, Clarence E.
Miller, Gladys L.	Brodeur, Oliver.
Miller, Margaret.	Busby, George H.
Miller, Mildred H.	Carragher, William A.
Minahan, Annie E.	Casey, Frank A.
Noonan, M. Loretta.	Ceppi, Silvio.
Norton, Agnes E.	Cloukia, Roy.
Ovens, Emily A.	Conboy, George A.
Parcher, F. Mabel.	Cotton, Chesley L.
Perella, Julia.	Cowan, John W.
Randall, Helen I.	Crandall, Daniel L.
Riley, Lily F.	Cuervo, Adolfo G.
Ryan, Margaret.	Cummings, Edwin.
Sanders, Olive B.	Cunningham, James H.
Sheffield, Emma J.	Curran, Edward.
Skinner, Maggie.	Davis, Aubrey J.
Smith, Elena.	Deane, William.
Smith, Nellie J.	Deming, Harold B.
Spring, Genevra H.	Dexter, Ralph C.
Stearns, Gladys L.	Dodge, George L.
Stevens, Ethel M.	Dow, Basil E.
Stewart, Margaret C.	Ellis, John W.
Traynor, Rose.	Elms, Arthur W.
Velandré, Corinna.	Fanning, Robert.
Viles, Alison P.	Fitzpatrick, John V.
Walker, Isabella M.	FitzSimmons, Joseph R.
Walsh, Annie.	Gibson, Leon S.
Wells, M. Esther.	Gordon, Allen G.
Wilde, Agnes.	Gosselin, Arthur.

Govereau, Edward.
Graham, William.
Hagopian, Krikor D.
Hamlett, Clarence S.
Hart, D. Frank.
Hawkins, A. Collins.
Hickey, Bernard.
Holbrook, William F.
Ierardi, Francesco.
Jean, Ludge.
Jordan, John W.
Kirshen, Morris.
Lambert, Frederick A.
Leach, Avery E.
Le Blanc, I. Medée.
Lucier, George E.
Lund, Olaf H.
Mahoney, J. Matthew.
Marshall, Joseph.
Martone, Antonio.
McDonough, William.
McFarland, Earle S.
McQueeney, William.
Michaud, Joseph.
Moore, Henry A.
Morang, James A.
Nelson, Francis C.

Nelson, Ralph.
Perkins, Walton.
Rafter, Louis J.
Rand, Henry.
Ray, Edward R.
Rodrigo, Joseph L.
Ryan, M. James.
Sacco, Nicola.
Safford, Robert F.
Salesses, Adrian.
Salmon, Peter J.
Shorley, Chester E.
Stringer, Thomas.
Tobin, Paul.
Velandré, Daniel.
Viggers, Frederick E.
Wallochstein, Jacob.
Walsh, Frederick V.
Walsh, William.
West, Paul L.
Wetherell, John.
Wheaton, Edward O.
Williams, Edward.
Wolpe, Aaron D.
Woods, Richard E.
Young, Gilbert E.

LIST OF PUPILS AT JAMAICA PLAIN.

Ahlgren, Alice L. E.
Anderson, Muriel C.
Andrews, Hattie M.
Ashworth, Evelyn M.
Bickford, Vera E.
Brannick, Elizabeth.
Burnham, Ruth E.
Carlson, Helen J.
Chesson, Marion.
Cohen, Alice.
Connelly, Elsie M.
Dolan, Grace G.
Drake, Helena M.
Duffy, Nelly.
Dufresne, Irene.
Elder, Gladys M.
Evanson, Elvera J.
Flynn, Marie E.
Gadbois, Roselma.
Gagnon, Albertina.
Galvin, Margaret L.
Galvin, Rose.
Goold, Claudia K.
Gorman, Marie T.
Gould, Viola M.
Grover, L. Ethel.
Guild, Bertha H.

Hamilton, Annie A.
Hilton, Charlotte.
Irwin, Helen M.
Kimball, Eleanor.
Little, Anna V.
Logan, Helena A.
MacPherson, Mary H.
McGill, Marie.
Olsen, Mabel T.
Perault, Yvonne A.
Perry, Gertrude.
Pilling, Agnes.
Pinto, Minnie P.
Pond, Flora E.
Ross, Lena.
Shean, Lucy M.
Sibley, Marian C.
Siebert, Bessie L.
Spencer, Olive E.
Stevens, Gladys L.
Terry, Annie B.
Thompson, Mary.
Uhrig, Mary G.
Vilaine, Mary C.
Waddington, Lillie.
Wallochstein, Annie.
Welch, Ellen.

Westwood, Laura I.
Wilson, R. Edris.
Wood, Adeline H.
Andrews, Thomas.
Antonucci, Alberto.
Barry, Thomas.
Bastow, Frederick W.
Blanchard, Ovila.
Booth, Willard E.
Boylan, Andrew L.
Brown, Arthur F.
Brown, A. Stanley.
Brown, Roland H.
Brownell, Herbert N.
Buck, Arthur B.
Chatterton, Percival.
Chick, Edward.
Clarke, Jerold P.
Cobb, Malcolm L.
Curley, Joseph H.
Cushman, Ralph.
Deane, C. Roland.
Devine, Joseph P.
Duke, George O.
Duncan, Wilbert.
Durfee, Sidney B.
Eastwood, Thomas J.
Evans, Thomas.
Ferguson, Milton W.
Gould, Francis E.
Hadley, Kenneth G.
Harris, Clifton W.
Healy, Millard A.

Holmberg, Arvid N.
Hopwood, Clarence A.
Hunt, Daniel L.
Irish, Clifford H.
Jacobs, David L.
Lawton, Ernest.
Lindsey, Perry R. S.
Mack, Francis J.
Main, Lewis E.
McFarlane, Francis P.
McLaughlin, Lloyd H.
Morrill, Warren A.
Myers, Harold P.
Osborn, Walstein H.
Pearce, Sidney A.
Reeves, William S.
Riley, Fred O.
Robertson, David O.
Schöner, Emil.
Sebastiano, Angelo.
Sharp, William F.
Simmons, Ralph D.
Stellaty, Alberte.
Tansey, Frederick.
Thompson, Harvey R.
Vance, Alvin L.
Walker, Roger T.
Ward, Frederick.
Whitcomb, Samuel W.
Wilcox, Joseph E.
Yott, Louis.
Zalolsky, Hyman.

SUBSCRIPTIONS FOR THOMAS STRINGER.

FROM SEPTEMBER 1, 1907, TO AUGUST 31, 1908.

Bristoll, Mrs. Rosa Olds, Minneapolis, Minn.,	\$2 00
Brown, Mrs. J. Conklin, Berkeley, Cal.,	10 00
Jackson, Mrs. Mary J.,	2 00
Matthews, Mrs. Annie B.,	50 00
Seabury, the Misses, New Bedford,	5 00
Sohier, Miss Mary D.,	25 00
Young, Miss Lucy F., Winchester,	1 00
	<hr/>
	\$95 00

PERMANENT FUND FOR THOMAS STRINGER.

[This fund is being raised with the distinct understanding that it is to be placed under the control and care of the trustees of the Perkins Institution and Massachusetts School for the Blind, and that only the net income is to be given to Tom so long as he is not provided for in any other way, and is unable to earn his living, the principal remaining intact forever. It is further understood, that, at his death or when he ceases to be in need of this assistance, the income of this fund is to be applied to the support and education of some child who is both blind and deaf and for whom there is no provision made either by the state or by private individuals.]

A friend,	\$50 00
French, Miss Caroline L. W.,	100 00
Income from the Glover Fund,	100 00
Parker, Mrs. Theodore K., Winchendon,	1 00
Primary Department of the Sunday-school of the First Methodist Protestant Church of Pittsburgh, Pa., through Mrs. William McCracken,	8 11
Whitney, Mr. George M., Winchendon,	1 00
	<hr/>
	\$260 11

INSTITUTION ACCOUNT.

STATEMENT OF WILLIAM ENDICOTT, JR., TREASURER OF THE PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL FOR THE BLIND, FOR THE YEAR ENDING AUGUST 31, 1908.

INSTITUTION ACCOUNT.

RECEIPTS. Balance on hand September 1, 1907. Donations, legacies and miscellaneous, Income from investments, Proceeds from sale of securities,		\$13,761 54	EXPENDITURES. Drafts to director, Less unexpended balance, Miscellaneous, Invested, Balance on hand August 31, 1908,	\$93,000 00	\$92,190 99
		84,629 63		809 01	325 50
		38,942 20			9,878 47
		5,061 11			39,999 52
					\$142,394 48

PRINTING ACCOUNT.

RECEIPTS. Balance on hand September 1, 1907, Income from investments, Miscellaneous, Proceeds from sale of securities,		\$6,235 31	EXPENDITURES. Drafts to director, Less unexpended balance, Invested, Balance on hand August 31, 1908,	\$10,700 00	\$10,635 07
		6,728 75		64 93	3,786 87
		544 72			536 84
		1,450 00			
					\$14,958 78

Boston, October 8, 1908.

Examined and approved.
EDWARD W. GREW,
ALBERT THORNDIKE,

WILLIAM ENDICOTT, JR., Treasurer.

Auditors.

STATEMENT OF RECEIPTS AND DISBURSEMENTS OF THE PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL FOR THE BLIND, FOR THE YEAR ENDING AUGUST 31, 1908.

[illegible]

PRINTING DEPARTMENT, STATEMENT FOR THE YEAR ENDING AUGUST 31, 1908.

[illegible]

The following account exhibits the state of property as entered upon the books of the institution September 1, 1908: —

	Book Value.	
Building, 205-207 Congress street,	\$75,800 00	
House, 402 Fifth street,	4,300 00	
Houses, 412, 414, 416 Fifth street,	9,300 00	
Houses, 424, 426, 428 Fifth street,	15,300 00	
Houses, 430-440 Fifth street and 103-105 H street,	47,200 00	
Building, 442 Fifth street to 111 H street,	21,300 00	
Houses, 537, 541, 543 Fourth street,	11,700 00	
House, 542 Fourth street,	7,800 00	
House, 555 Fourth street,	2,000 00	
Houses, 557, 559 Fourth street,	14,900 00.	
Houses, 583, 585, 587, 589 Fourth street,	18,700 00	
Houses, 591, 593, 595 Fourth street,	15,400 00	
Houses, 95, 97, 99 and 101 H street,	6,000 00	
House, 527 Broadway,	7,700 00	
	<hr/>	\$257,400 00
<i>Real Estate used by the Institution.</i>		
Real estate, Broadway and Fourth street,	\$210,200 00	
House, 418 Fifth street,	3,100 00	
House, 422 Fifth street,	3,700 00	
	<hr/>	217,000 00
Unimproved land, South Boston,		5,196 00
Mortgage notes,		75,500 00
<i>Stocks and Bonds.</i>		
150 shares Fitchburg R.R., preferred,	\$21,500 00	
25 shares New York, New Haven & Hartford R.R. Co.,	4,900 00	
\$20,000, Chesapeake & Ohio R.R., 1st consolidated, 5s, 1939,	20,000 00	
\$25,000, New York Central & Hudson River R.R., debenture, 4s, 1934,	25,000 00	
\$10,000, New York Central & Hudson River R.R. (Lake Shore), 3½s, 1998,	9,500 00	
\$9,000, Chicago, Burlington & Quincy R.R. (Denver Extension), 4s, 1922,	9,000 00	
\$15,000, New York, New Haven & Hartford R.R., 4s, 1955,	15,000 00	
\$40,000, New York, Ontario & Western R.R., 4s, 1992,	40,000 00	
\$25,000, Long Island R.R., refunding, 4s, 1949,	25,000 00	
\$35,000, Lake Shore & Michigan Southern R.R., debenture, 4s, 1931,	35,000 00	
	<hr/>	
Amounts carried forward,	\$204,900 00	\$555,096 00

	Book Value.	
<i>Amounts brought forward,</i>	\$204,900 00	\$555,096 00
\$50,000, American Telephone & Telegraph Com- pany, collateral, 4s, 1929,	48,500 00	
\$10,000, Seattle Electric Co., 5s, 1930,	10,000 00	
\$10,000, Plymouth Cordage Co., note, Dec. 22, 1908,	9,878 47	
\$35,000, Illinois Steel Co., 5s, 1913,	35,000 00	
		308,278 47
Cash,		39,999 52
Household furniture, South Boston,		18,500 00
Provisions and supplies, South Boston,		941 12
Coal, South Boston,		2,567 50
<i>Work Department.</i>		
Stock and bills receivable,		8,585 94
<i>Music Department.</i>		
Sixty-seven pianofortes,	\$12,250 00	
One three-manual pipe organ,	9,000 00	
Four reed organs,	100 00	
Eighty-three orchestral instruments,	2,680 00	
Musical library,	3,500 00	
		27,530 00
<i>Miscellaneous.</i>		
School furniture and apparatus,		14,000 00
Library of books in common print,	\$8,850 00	
Library of books in embossed print,	25,515 45	
Special library,	9,450 00	
		43,815 45
Boys' shop,		194 80
Stable and tools,		550 00
		\$1,020,058 80

The foregoing property represents the following funds and balances and is answerable for the same: —

INSTITUTION FUNDS.	
General fund of the institution,	\$118,420 56
Stephen Fairbanks fund,	10,000 00
Harris fund,	80,000 00
Richard Perkins fund,	20,000 00
Stoddard Capen fund,	13,770 00
<i>Amount carried forward,</i>	\$242,190 56

<i>Amount brought forward,</i>	\$242,190 56
In memoriam Mortimer C. Ferris,	1,000 00
Miss Harriet Otis Cruft fund,	6,000 00
Miss Sarah B. Fay fund,	1,500 00
Mary Lowell Stone fund,	2,000 00
LEGACIES: —	
Mrs. Elizabeth B. Bailey,	3,000 00
Mrs. Eleanor J. W. Baker,	2,500 00
Calvin W. Barker,	1,859 32
Miss Lucy A. Barker,	5,953 21
Miss Mary Bartol,	300 00
Thompson Baxter,	322 50
Robert C. Billings,	25,000 00
Robert C. Billings (deaf, dumb and blind),	4,000 00
Susan A. Blaisdell,	5,832 66
William T. Bolton,	555 22
George W. Boyd,	5,000 00
J. Putnam Bradlee,	100,000 00
T. O. H. P. Burnham,	5,000 00
Mrs. Eliza Ann Colburn,	5,000 00
I. W. Danforth,	2,500 00
John N. Dix,	10,000 00
Thomas Gaffield,	3,800 00
Albert Glover,	1,000 00
Joseph B. Glover,	5,000 00
Joseph B. Glover (deaf, dumb and blind),	5,000 00
Charles H. Hayden,	12,500 00
John C. Haynes,	1,000 00
Mrs. Margaret A. Holden,	3,708 32
Benjamin Humphrey,	25,000 00
Mrs. Susan B. Lyman,	4,809 78
The Maria Spear Legacy for the Blind,	15,000 00
Stephen W. Marston,	5,000 00
Charles Merriam,	1,000 00
Edward D. Peters,	500 00
Henry L. Pierce,	20,000 00
Mrs. Elizabeth P. Putnam,	1,000 00
Mrs. Charlotte B. Richardson,	40,507 00
Mrs. Matilda B. Richardson,	300 00
Miss Mary L. Ruggles,	3,000 00
Samuel E. Sawyer,	2,174 77
Joseph Scholfield,	2,500 00
Mary F. Swift,	1,391 00
William Taylor, Jr.,	893 36
Alfred T. Turner,	1,000 00
George B. Upton,	10,000 00
Mrs. Ann White Vose,	12,994 00
<i>Amount carried forward,</i>	\$608,091 70

<i>Amount brought forward,</i>	\$608,091 70
Joseph K. Wait,	3,000 00
Mrs. Mary Ann P. Weld,	2,000 00
Opha J. Wheeler,	3,086 77
Thomas Wyman,	20,000 00
Charles L. Young,	5,000 00
	<hr/>
	\$641,178 47
Cash,	39,999 52
Buildings, unimproved real estate and personal property in use of the institution, South Boston,	338,880 81
	<hr/>
	\$1,020,058 80

The following account exhibits the state of property as entered upon the books of the institution September 1, 1908:—

PRINTING DEPARTMENT.

<i>Stocks and Bonds.</i>	<i>Book Value.</i>
100 shares Fitchburg R.R., preferred,	\$14,000 00
75 shares Boston & Providence R.R., preferred,	22,500 00
209 shares Boston & Albany R.R.,	52,000 00
70 shares Old Colony R.R.,	14,000 00
100 shares West End St. Ry., common,	9,800 00
15 shares Suffolk Real Estate Trust,	15,000 00
1 share Boston Ground Rent Trust,	900 00
25 shares General Electric Co.,	2,400 00
\$10,000, St. Paul, Minneapolis & Manitoba R.R., 4s, 1937,	9,000 00
\$10,000, Northern Pacific & Great Northern R.R. (C., B. & Q.), joint 4s, 1921,	10,000 00
\$2,000, Chicago, Burlington & Quincy R.R. (Illinois Division), 3½s, 1949,	1,800 00
\$15,000, American Telephone & Telegraph Com- pany, Collateral Trust, 4s, 1929,	14,500 00
\$16,000, American Telephone & Telegraph Com- pany, convertible, 4s, 1936,	15,000 00
	<hr/>
	\$180,900 00
Stock and machinery,	\$5,050 00
Books,	17,200 00
Electrotype and stereotype plates,	29,107 00
	<hr/>
	51,357 00
Cash,	536 84
	<hr/>
	\$232,793 84

The foregoing property represents the following funds and balances and is answerable for the same:—

PRINTING FUND.

Capital,	\$108,500 00	
Legacy, Joseph H. Center,	1,000 00	
Additional funds,	69,000 00	
		<hr/>
		\$178,500 00
Cash,		536 84
Personal property in use of the printing department,		53,757 00
		<hr/>
		\$232,793 84

DONATIONS INSTITUTION ACCOUNT.

Barr, Mrs. Arthur W.,	\$2 00
Channing, Mrs. Walter,	10 00
Chesson, Harold,	50 00
Crafts, Mrs. James M.,	40 00
Dane, Mrs. Zerviah B.,	5 00
Doliber, Thomas,	10 00
Hazeltine, Chas. B. R.,	10 00
Hemenway, Miss Clara,	100 00
Jackson, Mrs. Mary J.,	8 00
Little Men's Club of the South Congregational Sunday-school of St. Johnsbury, Vt.,	2 75
Morse, Mrs. Leopold,	50 00
Peabody, The Misses,	50 00
Pratt, R. M.,	50 00
Sears, F. R.,	25 00
Sears, Mrs. F. R.,	20 00
S., Mrs.,	50 00
Slade, Mrs. D. D.,	5 00
Warren, Bentley W.,	5 00
White, C. J.,	25 00
Whitney, Mrs. C. G.,	1 00
Williams, Ralph B.,	25 00
	<hr/>
	\$543 75

**WORK DEPARTMENT. — STATEMENT FOR THE YEAR ENDING
AUGUST 31, 1908.**

Cash on hand August 31, 1907,	\$1,291 37	
Stock on hand and bills receivable August 31, 1907,	8,284 89	
	<hr/>	
Total assets August 31, 1907,		\$9,576 26
 Cash on hand August 31, 1907,	\$1,291 37	
Cash receipts for the year ending August 31, 1908,	24,489 75	
	<hr/>	
		\$25,781 12
 Cash paid for salaries and wages,	\$12,069 45	
Cash paid for rent, stock and sundries,	13,219 36	
	<hr/>	
		25,288 81
 Cash on hand August 31, 1908,		\$492 31
Stock on hand August 31, 1908,	\$4,455 49	
Bills receivable,	\$4,449 16	
Less amount to profit and loss,	318 71	
	<hr/>	
	4,130 45	
	<hr/>	
		8,585 94
 Total assets August 31, 1908,		9,078 25
 Loss for the year,		<hr/>
		\$498 01

ANALYSIS OF MAINTENANCE ACCOUNT.

INSTITUTION AT SOUTH BOSTON.

Meats, fish and vegetables,	\$5,750 12
Butter and milk,	3,706 05
Bread, flour, meal, etc.,	901 38
Fruit, fresh and dried,	721 96
Sugar, tea and coffee,	821 28
Groceries,	1,081 56
Gas and oil,	793 62
Coal and wood,	5,193 84
Sundry articles of consumption,	801 85
Wages, domestic and general service,	10,411 69
Salaries, superintendence and instruction,	30,242 18
Medicines and medical sundries,	126 26
Household furnishings,	1,967 69
Expense of stable,	129 31
Musical instruments and supplies,	226 83
Manual training supplies,	389 19
Stationery, printing, stamps, etc.,	1,679 65
Construction and other repairs,	4,747 38
Taxes and insurance,	487 50
Sundries,	1,235 75
	<hr/>
	\$71,415 09

KINDERGARTEN AT JAMAICA PLAIN.

Meats, fish and vegetables,	\$2,917 57
Butter and milk,	3,053 26
Bread, flour, meal, etc.,	588 98
Fruits, fresh and dried,	419 34
Sugar, tea and coffee,	504 75
Groceries,	481 97
Gas and oil,	452 48
Coal and wood,	2,943 32
Sundry articles of consumption,	598 35
Wages, domestic and general service,	6,171 81
Salaries, superintendence and instruction,	13,786 25
Medicines and medical sundries,	216 62
Household furnishings,	1,320 45
Expense of stable,	129 32
Musical instruments and supplies,	58 75
Manual training supplies,	258 61
Stationery, printing, stamps, etc.,	527 39
Construction and other repairs,	3,864 71
Taxes and insurance,	1,006 65
Sundries,	556 40
	<hr/>
	\$39,856 98

KINDERGARTEN ACCOUNT:

STATEMENT OF WILLIAM ENDICOTT, JR., TREASURER OF THE KINDERGARTEN FOR THE BLIND, FOR THE YEAR ENDING AUGUST 31, 1908.

[illegible]

Boston, October 8, 1908.

WILLIAM ENDICOTT, JR., Treasurer.

Examined and approved,

EDWARD W. GREW,
ALBERT THORNDIKE, } *Auditors.*

STATEMENT OF THE RECEIPTS AND DISBURSEMENTS OF THE KINDERGARTEN FOR THE BLIND, FOR THE
YEAR ENDING AUGUST 31, 1908.

RECEIPTS.		For		For	
From state of	ion,		repairs on	\$39,856 98	
"	"	\$3,679 18	"	6,269 48	
"	"	2,000 00	"	513 89	
"	"	900 00	"	738 12	
"	"	5,740 00	to Institu-	9,500 00	
"	"				\$56,878 47
Massachusetts, for deaf and blind,		\$12,319 18			492,800 68
towns and individuals,		700 00			18,095 72
sundry small items,		61 26			
income from stocks and bonds,		9 60			
income from real estate,		33,676 36			
		22,408 53			
		\$69,174 93			
RECEIPTS EXCLUSIVE OF INCOME.					
From donations through Ladies' Auxiliary,		\$713 00			
Mary Lowell Stone Fund,		500 00			
Friend F.,		1,000 00			
Mrs. Anna B. Matthews,		1,000 00			
In memory of Miss Alice M. C. Matthews,		100 00			
other donations,		928 00			
		4,241 00			
From estate of Sarah E. Potter,		\$394,947 44			
" Mrs. Maria L. Gray,		200 00			
" Emilie Albee,		150 00			
" Jane Roberts,		7,400 00			
		402,697 44			
securities sold and collected,		\$51,732 83			
Less amount to profit and loss,		4,488 83			
Cash on hand August 31, 1907,					
		47,243 75			
		44,217 75			
		\$567,574 87			
					\$567,574 87

The following account exhibits the state of property as entered upon the books of the Kindergarten September 1, 1908:—

	Book Value.	
Building, 288-290 Devonshire street, . . .	\$69,800 00	
Building, 250-252 Purchase street, . . .	76,800 00	
Building, 150-152 Boylston street, . . .	125,000 00	
Building, 379-385 Boylston street, . . .	110,000 00	
Building, 383-385 ² Centre street, . . .	5,400 00	
Real estate, corner Day and Centre streets, .	22,500 00	
Real estate, 72 Wachusett street, Forest Hills (subject to life annuity),	7,600 00	
Seaverns avenue,	7,400 00	
		\$424,500 00
<i>Real Estate used by the Kindergarten.</i>		
Real estate used for school purposes, Jamaica Plain,		279,000 00
<i>Stocks and Bonds.</i>		
30 shares Boston & Providence R.R., . . .	\$9,000 00	
291 shares Boston & Albany R.R., . . .	63,750 00	
280 shares Old Colony R.R., . . .	50,400 00	
25 shares New York, New Haven & Hartford R.R.,	5,000 00	
31 shares Boston & Maine R.R., preferred, .	5,400 00	
300 shares West End Street Railway, common,	25,600 00	
68 shares United States Hotel Company, . .	10,800 00	
100 shares Albany Trust,	10,000 00	
5 shares Calumet & Hecla Mining Company, .	2,600 00	
200 shares American Telephone & Telegraph Company,	27,000 00	
30 shares Warren Chambers,	900 00	
20 shares Providence Building Company, . .	1,000 00	
100 shares Fitchburg Railroad Co., preferred, .	12,300 00	
100 shares Lowell & Andover Railroad Co., .	23,000 00	
100 shares Nashua & Lowell Railroad Co., .	22,500 00	
100 shares Providence & Worcester R.R. Co., .	27,500 00	
200 shares West End Street Railway Co., pref.,	19,800 00	
4 shares Central Vermont R.R.,	4,400 00	}
\$5,000, Central Vermont R.R., 4s, 1920, . . .		
\$100,000, Northern Pacific & Great Northern R.R. (C., B. & Q.), joint 4s, 1921, . . .	91,000 00	
\$23,000, Chicago, Burlington & Quincy R.R. (Illinois Division), 3½s, 1949,	20,000 00	
\$11,000, Chicago, Burlington & Quincy R.R. (Denver Extension), 4s, 1922,	11,000 00	
\$10,000, New York Central & Hudson River R.R. (Lake Shore), 3½s, 1998,	9,500 00	
Amounts carried forward,	\$452,450 00	\$703,500 00

<i>Amounts brought forward,</i>	\$452,450 00	\$703,500 00
\$10,000, Atchison, Topeka & Santa Fé R.R., general mortgage, 4s, 1895,	10,000 00	
\$25,000, Long Island R.R., refunding, 4s, 1949,	25,000 00	
\$30,000, Lake Shore & Michigan Southern R.R., debenture, 4s, 1931,	28,400 00	
\$60,000, New York, New Haven & Hartford R.R., 4s, 1955,	59,000 00	
\$5,000, Louisville & Jeffersonville Bridge Com- pany, 4s, 1945,	5,000 00	
\$54,000, American Telephone & Telegraph Co., convertible, 4s, 1936,	50,886 00	
\$2,000, American Telephone & Telegraph Co., collateral trust, 4s, 1929,	1,930 00	
\$15,000, Puget Sound Electric Co., 5s, 1932,	14,200 00	
\$40,000, General Electric Co., convertible, 5s, 1917,	41,000 00	
\$25,000, West End Street Railway, 4s, 1932,	24,000 00	
\$25,000, City of Boston, 4s, 1937,	25,000 00	
\$25,000, State of Massachusetts, 3½s, 1942,	24,000 00	
\$9,000, City of Salem, 4s, 1908-14,	9,000 00	
\$4,000, Michigan Central R.R. Co., 5% notes, 1910,	4,000 00	
\$20,000, Boston & Maine R.R., 4s, 1926,	19,300 00	
\$2,000, Old Colony R.R., 4s, 1925,	2,000 00	
\$6,000, Town of Canton, 4s, 1910-15,	6,000 00	
\$4,000, Town of Framingham, school loan, 1915,	4,000 00	
\$3,000, Town of Framingham, school loan, 1911, 10 shares General Electric Co.,	3,000 00	
	1,450 00	
\$35,000, Plymouth Cordage Co., note, Dec. 22, 1908,	34,574 65	
		844,190 65
Cash,		18,095 72
Household furniture, Jamaica Plain,		17,600 00
Provisions and supplies, Jamaica Plain,		500 00
Coal, Jamaica Plain,		1,425 00
<i>Music Department.</i>		
Nineteen pianofortes,	\$3,800 00	
Twenty-one orchestral instruments,	200 00	
		4,000 00
		<u>\$1,589,311 37</u>

The foregoing property represents the following funds and balances and is answerable for the same:—

KINDERGARTEN FUNDS.

Mrs. William Appleton fund,	\$13,000 00
Nancy Bartlett fund,	500 00
In memory of William Leonard Benedict, Jr.,	1,000 00
Miss Helen C. Bradlee fund,	140,000 00
Mrs. M. Jane Wellington Danforth fund,	11,000 00
In memory of Mrs. Eliza James (Bell) Draper,	500 00
Mrs. Helen Atkins Edmands fund,	5,000 00
Mrs. Eugenia F. Farnham fund,	1,015 00
Miss Sarah M. Fay fund,	15,000 00
Albert Glover fund,	1,000 00
In memoriam A. A. C.,	500 00
Moses Kimball fund,	1,000 00
Mrs. Emeline Morse Lane fund,	500 00
Mrs. Annie B. Matthews fund,	15,000 00
Miss Jeannie Warren Paine fund,	1,000 00
George F. Parkman fund,	3,500 00
Mrs. Warren B. Potter fund,	30,000 00
John M. Rodocanachi fund,	1,250 00
Mrs. Benjamin S. Rotch fund,	8,500 00
Memorial to Frank Davison Rust,	5,000 00
Mrs. Harriet Taber fund,	622 81
Transcript ten dollar fund,	5,666 95
Mrs. George W. Wales fund,	10,000 00
In memory of Ralph Watson,	237 92
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	\$270,792 68

LEGACIES: —

Emilie Albee,	\$150 00
Michael Anagnos,	3,000 00
Mrs. Harriet T. Andrew,	5,000 00
Mrs. William Appleton,	5,000 00
Mrs. Eleanor J. W. Baker,	2,500 00
Mrs. Ellen M. Baker,	13,053 48
Miss Mary D. Balfour,	100 00
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Amount carried forward, \$299,596 16

<i>Amount brought forward,</i>	.	.	.	\$299,596 16
Sidney Bartlett,	.	.	.	10,000 00
Thompson Baxter,	.	.	.	322 50
Robert C. Billings,	.	.	.	10,000 00
Samuel A. Borden,	.	.	.	4,675 00
Mrs. Sarah Bradford,	.	.	.	100 00
Miss Harriet Tilden Browne,	.	.	.	2,000 00
John W. Carter,	.	.	.	500 00
Mrs. Adaline M. Chapin,	.	.	.	400 00
Benjamin P. Cheney,	.	.	.	5,000 00
Mrs. Helen G. Coburn,	.	.	.	9,980 10
Charles H. Colburn,	.	.	.	1,000 00
Miss Sarah Silver Cox,	.	.	.	5,000 00
Miss Susan T. Crosby,	.	.	.	100 00
Miss Caroline T. Downes,	.	.	.	12,950 00
George E. Downes,	.	.	.	3,000 00
Mrs. Lucy A. Dwight,	.	.	.	4,000 00
Mary B. Emmons,	.	.	.	1,000 00
Miss Mary Eveleth,	.	.	.	1,000 00
Mrs. Susan W. Farwell,	.	.	.	500 00
John Foster,	.	.	.	5,000 00
Mrs. Elizabeth W. Gay,	.	.	.	7,931 00
Mrs. Ellen M. Gifford,	.	.	.	5,000 00
Joseph B. Glover,	.	.	.	5,000 00
Miss Matilda Goddard,	.	.	.	300 00
Mrs. Maria L. Gray,	.	.	.	200 00
Mrs. Mary L. Greenleaf,	.	.	.	5,157 75
Mrs. Josephine S. Hall,	.	.	.	3,000 00
Mrs. Olive E. Hayden,	.	.	.	4,622 45
Mrs. Jane H. Hodges,	.	.	.	300 00
Mrs. Margaret A. Holden,	.	.	.	2,360 67
Miss Ellen M. Jones,	.	.	.	500 00
Mrs. Ann E. Lambert,	.	.	.	700 00
Elisha T. Loring,	.	.	.	5,000 00
Augustus D. Manson,	.	.	.	8,134 00
Miss Sarah L. Marsh,	.	.	.	1,000 00
Miss Rebecca S. Melvin,	.	.	.	23,545 55
Mrs. Mary Abbie Newell,	.	.	.	500 00
Miss Anna R. Palfrey,	.	.	.	50 00
Miss Helen M. Parsons,	.	.	.	500 00
				<hr/>
<i>Amount carried forward,</i>	.	.	.	\$449,925 18

<i>Amount brought forward,</i>	.	.	.	\$449,925 18
Mrs. Richard Perkins,	.	.	.	10,000 00
Edward D. Peters,	.	.	.	500 00
Mrs. Sarah E. Potter,	.	.	.	395,014 44
Mrs. Mary J. Phipps,	.	.	.	2,000 00
Mrs. Caroline S. Pickman,	.	.	.	1,000 00
Mrs. Helen A. Porter,	.	.	.	50 00
Francis S. Pratt,	.	.	.	100 00
Mrs. Mary S. C. Reed,	.	.	.	5,000 00
Mrs. Jane Roberts,	.	.	.	93,025 55
Miss Dorothy Roffe,	.	.	.	500 00
Miss Rhoda Rogers,	.	.	.	500 00
Miss Edith Rotch,	.	.	.	10,000 00
Miss Rebecca Salisbury,	.	.	.	200 00
Joseph Scholfield,	.	.	.	3,000 00
Mrs. Eliza B. Seymour,	.	.	.	5,000 00
Benjamin Sweetzer,	.	.	.	2,000 00
Hannah R. Sweetser fund,	.	.	.	5,000 00
Miss Sarah W. Taber,	.	.	.	1,000 00
Mrs. Cornelia V. R. Thayer,	.	.	.	10,000 00
Mrs. Delia D. Thorndike,	.	.	.	5,000 00
Mrs. Elizabeth L. Tilton,	.	.	.	300 00
Mrs. Betsey B. Tolman,	.	.	.	500 00
Mrs. Mary B. Turner,	.	.	.	7,582 90
Royal W. Turner,	.	.	.	24,082 00
Miss Rebecca P. Wainwright,	.	.	.	1,000 00
George W. Wales,	.	.	.	5,000 00
Mrs. Charles E. Ware,	.	.	.	4,000 00
Mrs. Jennie A. (Shaw) Waterhouse,	.	.	.	565 84
Mary H. Watson,	.	.	.	100 00
Mrs. Julia A. Whitney,	.	.	.	100 00
Miss Betsey S. Wilder,	.	.	.	500 00
Miss Mary W. Wiley,	.	.	.	150 00
Miss Mary Williams,	.	.	.	5,000 00
Almira F. Winslow,	.	.	.	306 80
Funds from other donations,	.	.	.	220,687 94
				<hr/>
				\$1,268,690 65
Cash,	.	.	.	18,095 72
Land, buildings and personal property in use of the				
kindergarten, Jamaica Plain,	.	.	.	302,525 00
				<hr/>
				\$1,589,311 37

DONATIONS KINDERGARTEN ACCOUNT.

Anonymous,	\$300 00
Brett, Mrs. Anna K.,	10 00
Brewer, Mrs. Joseph,	5 00
Brewer, Mrs. Joseph, gift in memory of her mother, Mrs. Slocum,	50 00
Brewster, Sarah C.,	5 00
Dana, Samuel B.,	10 00
Draper, Mrs. George A.,	50 00
Duncan, Mrs. Samuel W.,	3 00
Eaton, Miss Mary E.,	100 00
Fairbanks, Caroline L.,	10 00
Fay, Annie L.,	5 00
Hammond, Miss Ellen,	5 00
Hartley, Mrs. Harry,	10 00
Hill, C. S.,	1 00
Kendall, Miss H. W.,	50 00
Larned, Chas.,	100 00
Moors, J. B.,	5 00
Morse, Mrs. Leopold,	25 00
Porter, Mrs. Georgia M. Whidden,	25 00
Pratt, R. M.,	50 00
S., Mrs.,	50 00
Seabury, Miss Caroline O.,	} 25 00
Seabury, Miss Sarah E.,	
Soren, J. H.,	2 00
Sunday-school of All Souls Church, Roxbury,	10 00
Union Congregational Church, Primary Department Sun- day-school, Weymouth,	17 00
Warner, Robert L.,	5 00
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	\$928 00

CONTRIBUTIONS FOR THE PERKINS INSTITUTION.

Through the Ladies' Auxiliary Society, S. E. Lane,
Treasurer.

Annual subscriptions,	\$3,292 50
Donations,	2,081 00
Cambridge Branch, through Miss Elizabeth G. Norton, Treasurer,	404 00
Lynn Branch,	68 00
Milton Branch, through Mrs. William Wood, Treasurer, .	105 00
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	\$5,950 50

FOR THE KINDERGARTEN.

Subscriptions,	\$272 00
Donations,	128 00
Cambridge Branch,	69 00
Dorchester Branch, through Mrs. J. Henry Bean, Treasurer,	112 00
Milton Branch,	33 00
Worcester Branch; through Mrs. Edward W. Kinsley, Treasurer,	99 00
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	\$713 00

All contributors to the fund are respectfully requested to peruse the above list, and to report either to WILLIAM ENDICOTT, Jr., Treasurer, No. 115 Devonshire street, Boston, or to the Director, EDWARD E. ALLEN, South Boston, any omissions or inaccuracies which they may find in it.

WILLIAM ENDICOTT, JR., Treasurer.

No. 115 DEVONSHIRE STREET, BOSTON.

ANNUAL SUBSCRIPTIONS,

FOR THE PERKINS INSTITUTION.

Through the Ladies' Auxiliary Society, Miss S. E. LANE, *Treasurer*.

Abbott, Miss Adelaide F., .	\$5 00	<i>Amount brought forward,</i> .	\$308 00
Abbott, Miss Georgianna E.,	1 00		
Abbott, Mrs. J., .	5 00	Beebe, Mrs. J. Arthur, .	25 00
Abbott, Mrs. P. W., .	10 00	Bemis, Mrs. John W., .	3 00
Abel, Mrs. S. C., .	1 00	Berlin, Dr. Fanny, .	1 00
Adams, Mrs. Charles H., .	5 00	Bicknell, Mrs. William J., .	2 00
Adams, Mr. George, .	1 00	Bigelow, Mrs. G. T., .	5 00
Alford, Mrs. O. H., .	10 00	Bigelow, Mrs. Henry M., .	3 00
Allen, Mrs. F. R., .	5 00	Bigelow, Mrs. J. S., .	10 00
Allen, Mrs. Thomas, .	5 00	Bigelow, Mrs. Prescott, .	10 00
Allen, Mrs. W. Henry, .	5 00	Blacker, Miss Eliza F., .	10 00
Alley, Mrs. George R., .	2 00	Blackmar, Mrs. W. W., .	5 00
Ames, Miss Mary S., .	25 00	Blake, Mrs. Arthur W., .	5 00
Amory, Mr. Arthur, .	5 00	Blake, Mr. William P., .	5 00
Amory, Mrs. Charles W., .	100 00	Boardman, Mrs. Alice L., .	2 00
Amory, Mrs. William, .	5 00	Boardman, Miss E. D., .	2 00
Anderson, Miss Anna F., .	2 00	Boland, Dr. E. S., .	5 00
Anthony, Mrs. S. Reed, .	5 00	Bolster, Mrs. Wilfred, .	1 00
Appleton, Miss Fanny C., .	2 00	Bond, Mrs. Charles H., .	10 00
Armstrong, Mrs. George W., .	5 00	Boody, Mr. J. H., .	5 00
Atkins, Mrs. Edwin F., .	5 00	Boutwell, Mrs. L. B., .	10 00
Ayer, Mrs. James B., .	5 00	Bradford, Mrs. C. F., .	10 00
Bacon, Miss Ellen S., .	10 00	Bradford, Miss Sarah H., .	2 00
Bacon, Miss Mary P., .	5 00	Bremer, Mrs. J. L., .	10 00
Badger, Mrs. Wallis B., .	2 00	Brewer, Mrs. D. C., .	3 00
Bailey, Mrs. Hollis R., .	2 00	Brewer, Mr. Edward M., .	5 00
Baker, Miss S. P., .	5 00	Brewer, Miss Lucy S., .	10 00
Baldwin, Mrs. J. C. T., .	5 00	Brown, Miss Augusta M., .	5 00
Bangs, Mrs. Francis R., .	10 00	Brown, Mrs. Atherton T., .	10 00
Barnes, Mrs. Amos, .	1 00	Browning, Mrs. Charles A., .	5 00
Bartlett, Miss Mary H., .	5 00	Bruerton, Mrs. James, .	5 00
Bartol, Miss Elizabeth H., .	10 00	Brush, Mrs. C. N., .	5 00
Bass, Mrs. Emma M., .	10 00	Bullard, Mr. Stephen, .	10 00
Batcheller, Mrs. A. H., .	10 00	Bullard, Mrs. William S., .	25 00
Batcheller, Mr. Robert, .	2 00	Bullens, Miss Charlotte L., .	2 00
Bates, Mrs. I. Chapman, .	2 00	Bunker, Mr. Alfred, .	3 00
Batt, Mrs. C. R., .	5 00	Burnham, Mrs. John A., .	5 00
Beal, Mrs. Boylston A., .	10 00	Burr, Mrs. C. C., .	10 00
<i>Amount carried forward,</i> .	\$308 00	<i>Amount carried forward,</i> .	\$552 00

<i>Amount brought forward,</i> . \$552 00		<i>Amount brought forward,</i> . \$889 50	
Butler, Mrs. Elizabeth N., .	2 00	Curtis, Mrs. Mary S., .	5 00
Cabot, Dr. A. T., .	5 00	Curtis, Mr. William O., .	5 00
Cabot, Mrs. W. C., .	25 00	Cushing, Mrs. H. W., .	5 00
Calkins, Miss Mary W., .	2 50	Cushing, Miss Sarah P., .	5 00
Carr, Mrs. Samuel, .	10 00	Cutler, Mrs. E. G., .	2 00
Carter, Mrs. George E., .	5 00	Cutler, Mrs. George C., .	2 00
Carter, Mrs. John W., .	5 00	Cutter, Mr. Edward L., .	1 00
Carter, Miss M. Elizabeth, .	20 00	Cutter, Mrs. Ellen M., .	2 00
Cary, Miss Georgina S., .	10 00	Cutter, Mrs. Frank W., .	2 00
Caryl, Miss Harriet E., .	2 00	Dabney, Miss R. L., .	3 00
Cate, Mr. Martin L., .	2 00	Dale, Mrs. Eben, .	5 00
Cate, Mrs. Martin L., .	5 00	Damon, Mrs. J. L., Jr., .	2 00
Chandler, Mrs. Frank W., .	5 00	Dana, Mrs. George N., .	2 00
Chapin, Mrs. Henry B., .	5 00	Daniels, Mrs. Edwin A., .	1 00
Chase, Mrs. Susan R., .	1 00	Davis, Mrs. Joseph E., .	5 00
Cheney, Mrs. Arthur, .	10 00	Davis, Mrs. Simon, .	3 00
Cheney, Mr. C. W., .	5 00	Day, Mrs. Lewis, .	2 00
Clapp, Dr. H. C., .	2 00	Denny, Mrs. Arthur B., .	5 00
Clark, Mr. B. Preston, in memory of Mrs. B. C.		Denny, Mrs. H. M., .	1 00
Clark,	5 00	Denny, Mrs. W. C., .	2 00
Clark, Mrs. Frederic S., .	10 00	Derby, Mrs. Hasket, .	5 00
Clark, Mrs. John Dudley, .	15 00	Dixon, Mrs. L. S., .	2 00
Clark, Mrs. J. J., .	2 00	Dreyfus, Mrs. Carl, in mem- ory of Hettie Lang Shu- man,	5 00
Clark, Mrs. John T., .	10 00	Dwight, Mrs. Thomas, .	1 00
Clerk, Mrs. W. F., .	3 00	Edgar, Mrs. C. L., .	5 00
Cobb, Mrs. Charles K., .	5 00	Edmands, Mrs. M. Grant, .	10 00
Cochrane, Mrs. Alex, .	5 00	Edwards, Miss Hannah M., .	10 00
Cole, Mrs. E. E., .	2 00	Edwards, Mr. John C., .	10 00
Collamore, Miss Helen, .	5 00	Elms, Miss Florence G., .	1 00
Comer, Mrs. Joseph, .	1 00	Elms, Mrs. James C., .	1 00
Conant, Mrs. Nathaniel, .	2 00	Emerson, Miss Elizabeth, .	1 00
Congdon, Mrs. A. L., .	1 00	Emery, Mrs. Mark, .	1 00
Coolidge, Mrs. Algernon, .	5 00	Emmons, Mrs. R. W., 2d, .	20 00
Coolidge, Mrs. Francis L., .	1 00	Endicott, Mrs. Henry, .	5 00
Coolidge, Mrs. J. Randolph, .	25 00	Ernst, Mrs. C. W., .	2 00
Coolidge, Mrs. Penelope F., .	2 00	Estabrook, Mrs. Arthur F., .	5 00
Cotton, Miss Elizabeth A., .	15 00	Estabrook, Mrs. George W., .	1 00
Covel, Mrs. A. S., .	5 00	Eustis, Mrs. Herbert H., .	10 00
Cox, Mrs. William E., .	10 00	Eustis, Mrs. Henry L., .	5 00
Craig, Mrs. D. R., .	5 00	Evans, Mrs. Charles, .	2 00
Craigin, Dr. George A., .	5 00	Ewing, Mrs. C. A. E., .	1 00
Crane, Mr. Zenas, .	50 00	Fairbairn, Mrs. R. B., .	2 00
Crehore, Mrs. G. C., .	5 00	Fairbanks, Mrs. C. F., .	5 00
Crocker, Miss Sarah H., .	5 00	Farnsworth, Mrs. C. F., .	2 00
Curtis, the Misses, .	2 00	Fay, Mrs. Dudley B., .	10 00
Curtis, Mr. George W., .	5 00	Fay, Miss Sarah B., .	10 00
Curtis, Mrs. H. G., .	5 00	Fay, Miss Sarah M., .	10 00
Curtis, Mrs. J. F., .	5 00		
<i>Amount carried forward,</i> .	\$889 50	<i>Amount carried forward,</i> .	\$1,091 50

<i>Amount brought forward, \$1,091 50</i>		<i>Amount brought forward, \$1,322 50</i>	
Ferrin, Mrs. M. T. B., .	5 00	Heard, Mrs. J. Theodore, .	5 00
Field, Mrs. D. W., .	5 00	Heath, Mr. Nathaniel, .	5 00
Fisk, Mr. Lyman B., .	10 00	Hecht, Mrs. Jacob H., .	5 00
Fiske, Mrs. Joseph N., .	5 00	Hemenway, Mrs. Charles P.,	10 00
Flagg, Mrs. Augustus, .	10 00	Herman, Mrs. Joseph M., .	2 00
Flint, Mrs. Caroline E., .	5 00	Hersey, Mrs. Alfred H., .	5 00
Flint, Mrs. D. B., .	1 00	Higginson, Miss E. C., .	5 00
Foster, Mrs. Anna S., .	1 00	Higginson, Mrs. Henry L., .	15 00
Frank, Mrs. Daniel, .	2 00	Hight, Mrs. C. A., .	5 00
Freeman, Mrs. Louisa A., .	2 00	Hills, Mrs. S. E., .	2 00
French, Mrs. John J., .	5 00	Hobbs, Mrs. Warren D., .	5 00
Friedman, Mrs. Max, .	5 00	Hodgdon, Mrs. Henrietta, .	3 00
Friedman, Mrs. S., .	5 00	Holbrook, Mrs. Walter H., .	3 00
Frothingham, Mrs. Lucy F.,	2 00	Holden, Mrs. C. W., .	1 00
Gardner, Mrs. John L., .	2 00	Hooper, Miss Adeline D., .	5 00
Gay, Mrs. Albert, .	1 00	Hooper, Mrs. James R., .	15 00
Gay, Dr. Warren F., .	5 00	Houghton, Miss Elizabeth G.,	10 00
Giddings, Mrs. E. L., .	10 00	Howard, Mrs. P. B., .	1 00
Gilbert, Mr. Joseph T., .	2 00	Howe, Mrs. Arabella, .	2 00
Gill, Mr. Abbott D., .	2 00	Howe, Mrs. George D., .	5 00
Gillett, Mr. S. Lewis, .	3 00	Howe, Mr. George E., .	2 00
Gilmore, Mrs. Kelsey M., .	5 00	Howe, Mrs. J. S., .	5 00
Goldthwait, Mrs. Joel, .	2 00	Howland, Mrs. D. W., .	1 00
Goodhue, Mrs. George H., .	1 00	Hoyt, Mrs. J. C., .	5 00
Gowing, Mrs. Henry A., .	3 00	Hubbard, Mrs. Eliot, .	10 00
Graham, Mrs. John M., .	5 00	Hudson, Mrs. John E., .	5 00
Grandgent, Prof. Charles H.,	5 00	Hunneman, Miss Elizabeth A.,	2 00
Grandgent, Mrs. Lucy L., .	3 00	Hunneman, Mrs. Sally W., .	2 00
Gray, Mrs. John Chipman, .	25 00	Hunnewell, Mr. Walter, .	20 00
Gray, Mrs. Reginald, .	5 00	Hyde, Mrs. Thomas W., .	10 00
Greeley, Mrs. R. F., .	5 00	In memory of Mrs. Harriet	
Greenleaf, Mrs. Lyman B., .	5 00	L. Thayer, .	3 00
Greenough, Mrs. Charles P.,	3 00	Ireson, Mrs. S. E., .	5 00
Griggs, Mr. B. F., .	1 00	Jacobs, Mrs. Fred W., .	3 00
Griggs, Mrs. Thomas B., .	1 00	Jelly, Dr. George F., .	10 00
Guild, Mr. Frederic, .	10 00	Jenkins, Mr. Charles, .	5 00
Guild, Miss Harriet J., .	5 00	Jewett, Miss Sarah Orne, .	1 00
Gunsenhiser, Mrs. A., .	5 00	Johnson, Mr. Arthur S., .	10 00
Hall, Mrs. Anthony D., .	2 00	Johnson, Miss Fanny L., .	1 00
Hall, Mrs. Eliza J., .	2 00	Johnson, Mrs. Herbert S., .	10 00
Hall, Miss Fanny, .	1 00	Johnson, Mr. Wolcott H., .	10 00
Hall, Mrs. Solomon, .	10 00	Jones, Mrs. B. M., .	10 00
Harding, Mrs. Edgar, .	10 00	Josselyn, Mrs. A. S., .	5 00
Harrington, Mrs. F. B., .	5 00	Keene, Mrs. S. W., .	2 00
Harrington, Dr. Harriet L.,	2 00	Keep, Mrs. C. M., .	1 00
Harris, Mrs. Margaret E., .	5 00	Kelly, Mrs. E. A., .	5 00
Hatch, Mrs. Jennie B., .	5 00	Kettle, Mrs. C. L., .	1 00
Hawes, the Misses, .	2 00	Kidder, Mrs. Henry P., .	10 00
Head, Mrs. Charles, .	10 00	Kidner, Mrs. Reuben, .	2 00
<i>Amount carried forward, \$1,322 50</i>		<i>Amount carried forward, \$1,587 50</i>	

<i>Amount brought forward, \$1,587 50</i>		<i>Amount brought forward, \$2,107 50</i>	
Kimball, Mr. Edward P., .	10 00	Morrison, Mrs. William A., .	1 00
Kimball, Mrs. Marcus M., .	50 00	Morse, Miss Margaret F., .	5 00
King, Mrs. D. Webster, .	5 00	Morse, Mrs. S. A., .	1 00
Kingsley, Mrs. Robert C., .	1 00	Morse, Mrs. Anthony S., .	5 00
Klous, Mr. Isaac, .	2 00	Nathan, Mrs. Jacob, .	2 00
Koshland, Mrs. Joseph, .	10 00	Nazro, Mrs. Fred H., .	2 00
Lamb, Miss Augusta T., .	1 00	Nazro, Miss Mary W., .	2 00
Lamson, Mrs. John A., .	2 00	Neal, Miss Caroline F., .	5 00
Lane, Mrs. Benjamin P., .	1 00	Newell, Mrs. James W., .	2 00
Lane, Mrs. Gardiner Martin, .	10 00	Newell, Mrs. Mary A. M., .	5 00
Larkin, the Misses, .	2 00	Nichols, Mrs. E. H., .	5 00
Lawrence, Mr. Charles R., .	5 00	Nichols, Mrs. J. Howard, .	5 00
Lee, Mrs. George C., .	10 00	Niebuhr, Miss Mary M., .	1 00
Lee, Mrs. Joseph, .	100 00	Norcross, Mrs. Otis, .	5 00
Leland, Mrs. Lewis A., .	1 00	Norcross, Mrs. Otis, Jr., .	5 00
Levy, Mrs. B., .	2 00	North, Mrs. James N., .	2 00
Lins, Mrs. Ferdinand, .	2 00	Noyes, Mrs. G. D., .	2 00
Livermore, Mr. Thomas L., .	10 00	Olmsted, Mrs. J. C., .	2 00
Locke, Mrs. Charles A., .	10 00	Osborn, Mrs. Anna F., .	2 00
Loring, the Misses, .	30 00	Page, Mrs. Calvin Gates, .	2 00
Loring, Mrs. W. C., .	25 00	Page, Mrs. L. J., .	3 00
Lothrop, Miss Mary B., .	5 00	Paine, Mrs. William D., .	2 00
Lothrop, Mrs. Thornton K., .	50 00	Palfrey, Mrs. John C., .	5 00
Lothrop, Mrs. W. S. H., .	5 00	Parker, Mrs. Charles E., .	2 00
Lovering, Mrs. Charles T., .	10 00	Parker, Miss Eleanor S., .	5 00
Lovett, Mr. A. S., .	5 00	Peabody, Mrs. Anna P., .	10 00
Lowell, Mrs. Charles, .	5 00	Peabody, Mrs. Oliver W., .	10 00
Lowell, Mrs. Frederick E., .	5 00	Pearson, Mrs. C. H., .	5 00
Lowell, Mrs. John, .	5 00	Pecker, the Misses A. J. and	
Lyman, Mr. John P., .	10 00	M. L., .	10 00
Mack, Mrs. Thomas, .	10 00	Peckerman, Mrs. E. R., .	2 00
Mandell, Mrs. S. P., .	5 00	Peirce, Mrs. Silas, .	2 00
Mansfield, Mrs. George S., .	3 00	Peirson, Mrs. Charles L., .	10 00
Mansur, Mrs. Martha P., .	3 00	Perry, Mrs. Claribel N., .	5 00
Marsh, Mrs. Robert, .	1 00	Philbrick, Mrs. E. S., .	3 00
Marshall, Mrs. J. P. C., .	10 00	Pickert, Mrs. Lehman, .	2 00
Mason, Mrs. Charles E., .	20 00	Pierce, Mr. Phineas, .	10 00
Mason, Miss Fanny P., .	10 00	Pope, Mrs. A. W., .	2 00
Means, Miss Anne M., .	5 00	Pope, Drs. C. A. and E. F., .	2 00
Means, Mrs. William A., .	10 00	Porter, Miss Nellie E., .	1 00
Merriam, Mrs. Frank, .	10 00	Prager, Mrs. Philip, .	3 00
Merrill, Mrs. L. M., .	2 00	Pratt, Mrs. Elliott W., .	3 00
Merriman, Mrs. Daniel, .	10 00	Prendergast, Mr. James M., .	10 00
Metcalf, Mrs. I. Harris, .	5 00	Proctor, Mrs. Henry H., .	2 00
Mills, Mrs. D. T., .	5 00	Putnam, Miss Georgina L., .	10 00
Monks, Mrs. George H., .	5 00	Putnam, Miss Sarah G., .	10 00
Monroe, Mrs. George H., .	5 00	Quincy, Mrs. G. H., .	10 00
Moore, Mrs. Henry F., .	2 00	Quincy, Mrs. H. P., .	5 00
Morison, Mrs. John H., .	5 00	Rand, Mrs. Arnold A., .	2 00
Morrill, Miss Annie W., .	5 00	Ratchesky, Mrs. I. A., .	5 00
<i>Amount carried forward, \$2,107 50</i>		<i>Amount carried forward, \$2,319 50</i>	

<i>Amount brought forward, \$2,319 50</i>		<i>Amount brought forward, \$2,602 50</i>	
Raymond, Fairfield Eager, .	5 00	Sears, Mrs. Philip H., .	10 00
Raymond, Mrs. Henry E., .	5 00	Severance, Mrs. Pierre C., .	5 00
Reed, Mrs. Arthur, .	1 00	Shaw, Mrs. G. Howland, .	10 00
Reed, Mrs. John H., .	2 00	Shaw, Mrs. George R., .	2 00
Reed, Mrs. William Howell, .	20 00	Shaw, Mrs. Robert Gould, .	10 00
Rhodes, Mrs. Albert H., .	2 00	Shepard, Mrs. Elizabeth A., .	25 00
Rhodes, Miss Florence R., .	2 00	Shepard, Mr. Thomas H., .	5 00
Rice, Mrs. David Hall, .	2 00	Sherman, Mrs. William H., .	2 00
Rice, Mrs. N. W., .	10 00	Short, Mrs. Y. S., .	1 00
Rice, Mrs. William B., .	3 00	Sias, Mrs. Charles D., .	10 00
Richards, Miss Alice A., .	10 00	Simpkins, Miss Mary W., .	5 00
Richards, Miss Annie L., .	10 00	Slade, Mrs. D. D., .	5 00
Richards, Miss Caroline, .	5 00	Smith, Mrs. Phineas B., .	2 00
Richards, Mrs. C. A., .	10 00	Snow, Mrs. F. E., .	20 00
Richardson, Mrs. Edward C., .	5 00	Sprague, Mrs. Charles, .	1 00
Riley, Mr. Charles E., .	10 00	Sprague, Miss Mary C., .	5 00
Ripley, Mr. Frederic H., .	2 00	Stackpole, Miss Roxana, .	5 00
Robbins, Mrs. Helen S., .	2 00	Standish, Miss Adelaide, .	5 00
Robinson, Miss H. M., .	10 00	Stearns, Mr. and Mrs. C. H., .	30 00
Rodman, Miss Emma, .	5 00	Stearns, Mrs. R. H., .	5 00
Roeth, Mrs. A. G., .	1 00	Steese, Mrs. Edward, .	5 00
Rogers, Miss Annette P., .	10 00	Steinert, Mrs. Alex., .	3 00
Rogers, Mrs. Henry M., .	5 00	Stetson, Miss Sarah M., .	5 00
Rogers, Mrs. J. F., .	3 00	Stevens, Mrs. Horace H., .	5 00
Rogers, Mrs. R. K., .	5 00	Stevenson, Miss Annie B., .	5 00
Rogers, Miss Susan S., .	5 00	Stevenson, Mrs. Robert H., .	10 00
Rogers, Mrs. William B., .	3 00	Stone, Mrs. Edwin P., .	5 00
Rotch, Mrs. Clara M., .	10 00	Stone, Mrs. Frederic, .	15 00
Rotch, Miss Mary R., .	10 00	Stone, Mrs. Philip S., .	1 00
Rotch, Mrs. Thomas M., .	2 00	Strauss, Mrs. Ferdinand, .	3 00
Rowlett, Mrs. Thomas S., .	1 00	Strauss, Mrs. Louis, .	2 00
Russell, Mrs. Henry G., .	25 00	Sturgis, Mrs. John H., .	5 00
Russell, Mrs. Isaac H., .	5 00	Swan, Mr. Charles H., .	5 00
Rust, Mrs. Nathaniel J., .	2 00	Swann, Mrs. John, .	10 00
Sabine, Miss Catharine, .	2 00	Sweetser, Mrs. Frank E., .	3 00
Sabine, Mrs. G. K., .	2 00	Symonds, Miss Lucy Harris, .	5 00
St. John, Mrs. J. A., .	5 00	Taft, Mrs. L. H., .	5 00
Saltonstall, Mr. Richard M., in memory of his mother, Mrs. Leverett Saltonstall, .	10 00	Talbot, Mrs. Charles R., .	2 00
Sampson, Mrs. Oscar H., .	5 00	Talbot, Mrs. Thomas, .	25 00
Sanborn, Mrs. C. W. H., .	2 00	Talbot, Mrs. Thomas Palmer, .	1 00
Sanger, Mr. Sabin P., .	3 00	Talbot, Miss Leslie, .	1 00
Sargent, Mrs. F. W., .	5 00	Talbot, Miss Marjorie, .	1 00
Saunders, Mrs. D. E., .	1 00	Talbot, Mrs. William H., .	1 00
Scudder, Mrs. J. D., in mem- ory of her mother, Mrs. N. M. Downer, .	5 00	Tappan, Miss Mary A., .	15 00
Scull, Mrs. Gideon, .	10 00	Taylor, Mrs. E. B., .	5 00
Sears, Mrs. Knyvet W., .	25 00	Thacher, Mrs. Henry C., .	10 00
		Thayer, Miss Adele G., .	10 00
		Thing, Mrs. Annie E., .	10 00
		Thomas, Miss Catharine C., .	2 00
		Thomson, Mrs. Arthur C., .	5 00
<i>Amount carried forward, \$2,602 50</i>		<i>Amount carried forward, \$2,945 50</i>	

<i>Amount brought forward,</i> \$2,945 50		<i>Amount brought forward,</i> \$3,104 50	
Thorndike, Mrs. Augustus, .	5 00	White, Mrs. Norman H., .	1 00
Thorndike, Mrs. Augustus L.,	1 00	Whiting, Mrs. S. B., .	5 00
Tucker, Mrs. J. Alfred, .	1 00	Whitney, Mrs. George, .	2 00
Tyler, Mr. Granville C., .	2 00	Whittemore, Mrs. Augustus, .	2 00
Tyler, Mrs. Joseph H., .	5 00	Whittington, Mrs. Hiram, .	2 00
Van Nostrand, Mrs. A. G., .	5 00	Whitwell, Mrs. Frederick A.,	5 00
Vass, Miss Harriett, .	5 00	Willcomb, Mrs. George, .	5 00
Vorenberg, Mrs. S., .	1 00	Willcutt, Mr. Levi L., .	10 00
Wadsworth, Mrs. A. F., .	5 00	Williams, the Misses, .	5 00
Wadsworth, Mrs. Oliver F., .	5 00	Williams, Mrs. Charles A., .	5 00
Walker, Mrs. J. Albert, .	2 00	Williams, Mrs. Harriet C., .	25 00
Walker, Mrs. W. H., .	10 00	Williams, Mrs. Jeremiah, .	1 00
Ward, the Misses, .	10 00	Williams, Mr. Moses, .	5 00
Ward, Miss Ellen M., .	5 00	Williams, Mrs. Moses, .	5 00
Ward, Miss Julia A., .	2 00	Williams, Mrs. T. B., .	5 00
Warner, Mrs. Frederick H., .	10 00	Wilson, Miss Annie E., .	5 00
Warren, Mrs. Bentley W., .	5 00	Wilson, Mrs. Edward C., .	5 00
Warren, Mrs. J. C., .	5 00	Wilson, Miss Lilly M., .	5 00
Warren, Mrs. William W., .	25 00	Winkley, Mrs. S. H., .	25 00
Wason, Mrs. Elbridge, .	5 00	Winsor, Mrs. Ernest, .	1 00
Watson, Miss Elizabeth, .	2 00	Withington, Miss Anna S., .	1 00
Wead, Mrs. Leslie C., .	2 00	Wonson, Mrs. Harriet A., .	2 00
Webster, Mrs. Edwin S., .	5 00	Wood, Mr. Henry, .	5 00
Webster, Mrs. F. G., .	5 00	Woodbury, Mr. John P., .	5 00
Weeks, Mrs. W. B. P., .	2 00	Woodworth, Mrs. A. S., .	10 00
Weld, Mrs. A. Winsor, .	2 00	Worthley, Mrs. George H., .	2 00
Weld, Mrs. Samuel M., .	5 00	Wright, Mr. John G., .	10 00
West, Mrs. Preston C. F., .	2 00	Wright, Mrs. John G., .	10 00
Whalen, Mrs. J. E., .	1 00	Wright, Miss Mary A., .	3 00
Wheeler, Mrs. A. S., .	5 00	Young, Mrs. Benjamin L., .	10 00
Wheelwright, the Misses, .	2 00	Young, Miss Lucy F., .	1 00
White, Miss Eliza Orne, .	10 00	Ziegel, Mr. Louis, .	5 00
White, Mrs. Joseph H., .	2 00		
<i>Amount carried forward,</i> \$3,104 50		\$3,292 50	

DONATIONS.

<i>Amount brought forward,</i> \$124 00		<i>Amount brought forward,</i> \$124 00	
A friend, .	\$50 00	Baylies, Mrs. Walter Cabot, .	15 00
Anderson, Miss Anna F., .	1 00	Bemis, Mr. J. M., .	10 00
Anonymous, .	25 00	Berwin, Mrs. Jacob, .	5 00
Appleton, Mrs. Samuel, .	5 00	Bigelow, Miss Mary Anna, .	10 00
Baer, Mrs. Louis, .	5 00	Blake, Mrs. T. D., .	5 00
Ballard, Miss Elizabeth, .	5 00	Borland, Mr. M. W., .	25 00
Bartlett, the Misses, .	5 00	Bowditch, Mrs. Alfred, .	5 00
Bartol, Miss Elizabeth H., .	25 00		
Basto, Mrs. Mary A., .	3 00		
<i>Amount carried forward,</i> \$124 00		<i>Amount carried forward,</i> \$199 00	

<i>Amount brought forward, . \$199 00</i>		<i>Amount brought forward, . \$963 00</i>	
Bowditch, Dr. H. P., .	3 00	Harris, Miss Frances K., .	2 00
Bowditch, Mr. William I., .	25 00	Harwood, Mrs. George S., .	25 00
Brewer, Mr. Edward M., .	10 00	Hill, Mrs. Lew C., .	5 00
Brown, Mr. Samuel N., .	5 00	Howe, the Misses, .	10 00
Cabot, Mrs. George E., .	5 00	Hunnewell, Mrs. Arthur, .	25 00
Cabot, Mrs. Walter C., .	25 00	Hutchins, Mrs. C. F., .	5 00
Cary, Miss Ellen G., .	50 00	Hyneman, Mrs. Louis, .	2 00
Case, Mrs. James B., .	50 00	Iasigi, Mrs. Oscar, .	25 00
Chapman, Miss E. D., .	1 00	Johnson, Mr. Edward C., .	25 00
Chapman, Miss J. E. C., .	2 00	Johnson, Mrs. F. W., .	2 00
Choate, Mr. Charles F., .	10 00	Jolliffe, Mrs. T. H., .	5 00
Clapp, Miss Helen, .	3 00	Keep, Mrs. F. E., .	2 00
Clark, Mrs. Robert F., .	5 00	Kennard, Mrs. C. W., .	2 00
Clarke, Mrs. Albert, .	3 00	Kettle, Mrs. L. N., .	5 00
Cochran, Mrs. A. F., .	5 00	Kimball, the Misses, .	25 00
Codman, Mr. Charles R., .	10 00	King, Mrs. George P., .	5 00
Converse, Mrs. C. C., .	10 00	Lincoln, Mr. A. L., .	5 00
Coolidge, Mr. John T., .	25 00	Lovett, Mrs. A. S., .	5 00
Cotting, Mrs. C. E., .	5 00	Lyman, Mrs. George H., .	10 00
Crane, Mrs. Z. Marshal, .	50 00	Lyman, Mr. John P., .	15 00
Cummings, Mrs. Charles A., .	5 00	Lyman, Mrs. Theodore, .	100 00
Curtis, Mrs. Charles P., .	150 00	Magee, Mr. John L., .	10 00
Dabney, Mr. Lewis S., .	15 00	Mandell, Mrs. S. P., .	50 00
Dabney, Miss R. L., .	2 00	Mansfield, Mrs. S. M., .	1 00
Dane, Mrs. Edward S., .	10 00	Matchett, Mrs. W. F., .	5 00
Davis, Mrs. Edward L., .	5 00	Messinger, Miss Susan D., .	1 00
Davis, Mrs. Roscoe G., .	5 00	Monks, Mrs. George H., .	20 00
DeLong, Mrs. E. R., .	1 00	Morrill, Miss Amelia, .	20 00
Devlin, Mr. John E., .	40 00	Morrill, Miss Annie W., .	20 00
DuBois, Mrs. L. G., .	15 00	Morrill, Miss Fanny E., .	20 00
Edmands, Mrs. M. Grant, .	5 00	Morse, Mrs. Samuel T., .	50 00
Eliot, Mrs. Amory, .	2 00	Moseley, Miss Ellen F., .	50 00
Emery, Miss Octavia B., .	2 00	Perry, Mrs. Charles F., .	5 00
Ernst, Mrs. H. C., .	5 00	Perry, Mrs. Mary E., .	50 00
Evans, Mrs. Glendower, .	10 00	Peters, Mrs. F. A., .	5 00
Faulkner, Miss Fannie M., .	15 00	Pfaelzer, Mrs. F. T., .	5 00
Fottler, Mrs. Jacob, .	2 00	Phillips, Mrs. John C., .	25 00
Freeman, Mrs. Louisa A., .	1 00	Porter, Mrs. Alex. S., Jr., .	5 00
French, Miss Cornelia A., .	25 00	Potter, Mrs. William H., .	3 00
Frothingham, Mrs. Langdon, .	5 00	Putnam, Mrs. James J., .	5 00
Frothingham, Mrs. Lucy F., .	1 00	Putnam, Miss Sarah G., .	5 00
Gill, Mrs. George F., .	1 00	Ranney, Mr. Fletcher, .	5 00
Goulding, Mrs. L. R., .	5 00	Reed, Mrs. John H., .	3 00
Graves, Mrs. J. L., .	5 00	Rhodes, Mrs. James F., .	10 00
Gray, Mrs. Morris, .	5 00	Richardson, Mrs. Frederic, .	5 00
Green, Mr. Charles G., .	10 00	Richardson, Mrs. John, .	2 00
Grew, Mrs. H. S., .	100 00	Richardson, Mr. Spencer W., .	5 00
Guild, Mrs. S. Eliot, .	10 00	Robinson, Mrs. H. H., .	1 00
Hall, Miss Laura E., .	5 00	Robinson, Mrs. H. W., .	5 00
<i>Amount carried forward, . \$963 00</i>		<i>Amount carried forward, \$1,659 00</i>	

<i>Amount brought forward,</i> \$1,659 00		<i>Amount brought forward,</i> \$1,806 00	
Rosenbaum, Mrs. L., .	1 00	Upham, Miss Susan, .	50 00
Russell, Mrs. William A., .	10 00	Vialle, Mr. Charles A., .	5 00
Seamans, Mr. James M., .	10 00	Vinton, Mrs. Frederic P., .	1 00
Sever, Miss Emily, .	5 00	Ward, the Misses, .	5 00
Shaw, Mrs. B. S., .	5 00	Ward, Miss Ellen M., .	5 00
Shaw, Mrs. Quincy A., .	25 00	Ware, Miss Mary Lee, .	25 00
Slatery, Mrs. William, .	1 00	Watson, Miss Abby L., .	3 00
Souther, Mrs. J. K., .	5 00	Weld, Mrs. William F., .	100 00
Spalding, Miss Dora N., .	25 00	Wesson, Miss Isabel, .	5 00
Sprague, Dr. F. P., .	10 00	Wheelwright, Mr. John W., .	10 00
Standish, Miss Adelaide, .	5 00	White, Mrs. Charles T., .	5 00
Stevens, Miss Alice B., .	5 00	Whiting, Miss Anna M., .	5 00
Stevenson, Miss Annie B., .	5 00	Whitman, Mr. James H., .	10 00
Thacher, Mrs. Lydia W., .	5 00	Whitman, Mrs. James H., .	10 00
Thayer, Mr. Byron T., .	5 00	Whitney, Mr. Edward F., .	10 00
Thayer, Mrs. Ezra Ripley, .	10 00	Whitney, Miss Kate A., .	5 00
Tileston, Miss Edith, .	1 00	Williston, Mrs. L. R., .	1 00
Tileston, Miss Eleanor, .	1 00	Willson, Miss Lucy B., .	5 00
Tileston, Mrs. John B., .	5 00	Windram, Mrs. W. T., .	10 00
Tucker, Mrs. William A., .	3 00	Woodman, Mr. Stephen F., .	5 00
Tudor, Mrs. Henry D., .	5 00		
<i>Amount carried forward,</i> \$1,806 00		\$2,081 00	

CAMBRIDGE BRANCH.

Through Miss ELIZABETH G. NORTON.

<i>Amount brought forward,</i> . \$84 00		<i>Amount brought forward,</i> . \$84 00	
Abbot, Miss Anne W., .	\$10 00	Dana, Mrs. R. H., .	2 00
Abbot, Mrs. Edwin H., .	10 00	Davis, Mrs. W. M., .	2 00
Abbott, Mrs. Edward, .	3 00	Deane, Mrs. Walter, .	2 00
Aldrich, Mrs. C. F., .	2 00	Durant, Mrs. W. B., .	1 00
Ames, Mrs. J. B., .	10 00	Ela, Mrs. Walter, .	2 00
Batchelder, Miss Isabel, .	2 00	Emery, Miss Octavia B., .	3 00
Beaman, Mrs. G. W., .	2 00	Eustis, Mrs. Frank I., .	3 00
Beard, Mrs. Edward L., .	1 00	Farlow, Mrs. W. G., .	5 00
Boggs, Mrs. Edwin P., .	1 00	Folsom, Mrs. Norton, .	2 00
Bradford, Miss Edith, .	5 00	Foster, Mrs. Francis C., .	100 00
Brewster, Mrs. William, .	5 00	Francke, Mrs. Kuno, .	2 00
Brooks, Miss Martha W., .	5 00	Glover, Mrs. Henry R., .	2 00
Bulfinch, Miss Ellen S., .	2 00	Goodale, Mrs. G. L., .	1 00
Carstein, Mrs. H. L., .	1 00	Goodwin, Miss Amelia M., .	5 00
Cary, Miss Emma F., .	5 00	Green, Miss Mary A., .	2 00
Chandler, Mrs. S. C., .	2 00	Hall, Rev. Edward H., .	10 00
Chapman, Miss Anna B., .	1 00	Hastings, Mrs. F. W., .	2 00
Child, Mrs. Francis J., .	2 00	Hedge, Miss Charlotte A., .	5 00
Cooke, Mrs. Josiah P., .	5 00		
Coolidge, Mrs. Julian L., .	10 00		
<i>Amount carried forward,</i> . \$84 00		<i>Amount carried forward,</i> . \$235 00	

<i>Amount brought forward,</i>	<i>\$235 00</i>	<i>Amount brought forward,</i>	<i>\$305 00</i>
Hoppin, Miss E. M., .	5 00	Saville, Mrs. H. M., .	1 00
Horsford, Miss Katharine, .	5 00	Sedgwick, Miss M. Theodora, .	5 00
Howard, Mrs. Anna H., .	5 00	Sharples, Mrs. Stephen P., .	1 00
Howe, Miss Sara R., .	5 00	Smith, Mrs. H. S., .	2 00
Ireland, Miss Catharine I., .	3 00	Spelman, Mrs. I. M., .	5 00
Kennedy, Mrs. F. L., .	3 00	Thayer, Mrs. James B., .	1 00
Kettell, Mrs. Charles W., .	3 00	Thorpe, Mrs. J. G., .	10 00
Leeds, Miss Caroline T., .	1 00	Tilton, Mrs. H. N., .	2 00
Longfellow, Miss Alice M., .	5 00	Toppan, Miss Laura N., .	5 00
Longfellow, Mrs. W. P. P., .	5 00	Vaughan, Mrs. B., .	10 00
Moore, Mrs. Lucy T., .	3 00	Wesselhoeft, Mrs. Walter, .	2 00
Morison, Mrs. Robert S., .	5 00	White, Mrs. M. P., .	5 00
Neal, Mrs. W. H., .	1 00	Whitney, Miss Maria, .	10 00
Nichols, Mrs. J. T. G., .	2 00	Whittemore, Mrs. F. W., .	10 00
Page, Miss A. S., .	1 00	Williston, Mrs. L. R., .	2 00
Palfrey, the Misses, .	5 00	Willson, Mrs. Robert W., .	5 00
Perrin, Mrs. Franklin, .	1 00	Woodman, Miss Mary, .	20 00
Richards, Mrs. Mary A., .	2 00	Woodman, Mrs. Walter, .	3 00
Roberts, Mrs. C. S., .	10 00		
			<i>\$404 00</i>
<i>Amount carried forward,</i>	<i>\$305 00</i>		

LYNN BRANCH.

Averill, Miss M. J., .	\$2 00	<i>Amount brought forward,</i>	<i>\$34 00</i>
Berry, Mrs. Benjamin J., .	5 00	LeRow, Mrs. Maria H., .	1 00
Breed, Mrs. Mary E., .	1 00	Page, Miss E. D., .	1 00
Caldwell, Mrs. Ellen F., .	1 00	Sheldon, Mrs. Mary L., .	5 00
Chase, Mrs. Alice B., .	5 00	Smith, Mrs. Sarah F., .	10 00
Earp, Miss Emily A., .	1 00	Sprague, Mr. Henry B., .	5 00
Elmer, Mr. and Mrs. V. J., .	5 00	Tapley, Mr. and Mrs. H. F., .	5 00
Harmon, Mrs. Rollin E., .	1 00	Thomson, Mr. Elihu (donation), .	5 00
Haven, Miss Cassie S., .	1 00	Walsh, Mr. and Mrs. Charles, .	2 00
Heath, Mrs. Caroline P., .	2 00		
Hollis, Mrs. Samuel J., .	10 00		
			<i>\$68 00</i>
<i>Amount carried forward,</i>	<i>\$34 00</i>		

MILTON BRANCH.

Through Mrs. WILLIAM WOOD.

Breck, Mrs. C. E. C., .	\$1 00	<i>Amount brought forward,</i>	<i>\$6 00</i>
Brooks, Mrs. Henry G., .	1 00	Cunningham, Mrs. Caleb, .	4 00
Channing, the Misses, .	2 00	Dow, the Misses, .	10 00
Clarke, Mrs. D. Oakes, .	1 00	Forbes, Mrs. J. Murray, .	5 00
Clum, Mrs. Alison B., .	1 00		
			<i>\$25 00</i>
<i>Amount carried forward,</i>	<i>\$6 00</i>	<i>Amount carried forward,</i>	<i>\$25 00</i>

<i>Amount brought forward,</i>	<i>\$25 00</i>	<i>Amount brought forward,</i>	<i>\$80 00</i>
Gilmore, Miss Mary E.,	1 00	Roberts, Mrs. George F.,	1 00
Hemenway, Mrs. Augustus,	25 00	Safford, Mrs. N. M.,	2 00
Hicks, Miss Josephine M.,	2 00	Tucker, Miss R. L.,	1 00
Hinckley, Miss Mary H.,	1 00	Tucker, Mrs. Stephen A.,	1 00
Hollingsworth, Mrs. Amor L.,	3 00	Tuell, Mrs. Hiram,	1 00
Jaques, Mrs. Francis,	5 00	Wadsworth, Mrs. E. D.,	1 00
Jaques, Miss Helen L.,	10 00	Weston, Mr. William B.,	5 00
Klous, Mrs. Henry D.,	1 00	Whitwell, Mrs. F. A.,	1 00
Ladd, Mrs. William J.,	5 00	Whitwell, Miss Natalie,	1 00
Pierce, Mrs. M. V.,	1 00	Williams, Mrs. R. B.,	1 00
Pierce, Mr. Vassar,	1 00	Wood, Mrs. William,	10 00
<i>Amount carried forward,</i>	<i>\$80 00</i>		<i>\$105 00</i>

SUBSCRIPTIONS FOR THE KINDER- GARTEN.

Archer, Mrs. Ellen M. H.,	\$1 00	<i>Amount brought forward,</i>	<i>\$152 00</i>
Betton, Mrs. C. E. (1907-08),	2 00	Lawrence, Mrs. John (for	
Blake, Mrs. S. Parkman,	5 00	1907),	5 00
Burr, Mrs. Allston,	5 00	Lovering, Mrs. Charles T. (for	
Burr, Mrs. I. Tucker,	10 00	1907),	5 00
Cary, Miss Ellen G.,	20 00	Marrs, Mrs. Kingsmill,	10 00
Clapp, Mrs. Dwight M.,	2 00	Nickerson, Mr. Andrew,	10 00
Cowing, Mrs. Martha W.,	25 00	Perry, Miss Elizabeth H. (for	
Downes, Mrs. Lilla A.,	2 00	1907-08),	2 00
Drost, Mrs. C. A.,	5 00	Porteous, Miss M. F.,	1 00
Ellis, Mrs. E. A.,	1 00	Richards, Mrs. E. L.,	2 00
Fitz, Mrs. W. Scott,	25 00	Shattuck, Mrs. George B.,	5 00
Hayden, Mrs. Charles R.,	5 00	Storer, Miss A. M.,	5 00
Higginson, Mrs. F. L.,	5 00	Storer, Miss M. G.,	5 00
Hills, Mrs. Edwin A.,	5 00	Swan, Miss Elizabeth B.,	5 00
Horton, Mrs. Edward A.,	2 00	Traiser, Mrs. Richard E.,	5 00
Jennings, Miss Julia F.,	2 00	Tuckerman, Mrs. C. S.,	5 00
Jewett, Miss Annie (for 1907-08),	4 00	Turner, Miss Abby W.,	25 00
Keep, Mrs. Charles M.,	1 00	Weston, Mrs. Henry C.,	10 00
Kimball, Mrs. David P.,	25 00	Willard, Mrs. Ashton R.,	5 00
<i>Amount carried forward,</i>	<i>\$152 00</i>	Wyman, Mr. A. E.,	15 00
			<i>\$272 00</i>

DONATIONS.

Anonymous, . . .	\$1 00	<i>Amount brought forward, .</i>	\$77 00
Boynton, Miss Ella F., . .	5 00		
Cobb, Mrs. Darius, . . .	1 00	Naugus Head Sunday-school,	
Cushing, Miss Sarah P., . .	5 00	through Mrs. Leland H.	
Gardner, Mr. George A., . .	50 00	Cole,	15 00
Girls' Club of the Baptist		Rhodes, Mrs. S. H., . . .	5 00
Church, Beverly, through		S. E. A.,	1 00
Miss M. F. Kimball, . . .	5 00	Tilton, Mrs. Joseph B., . .	5 00
Loring, Mrs. Augustus P., . .	10 00	Winthrop, Mrs. T. Lindall, .	25 00
<hr/>		<hr/>	
<i>Amount carried forward, .</i>	\$77 00		\$128 00

CAMBRIDGE BRANCH.

Through Miss ELIZABETH G. NORTON.

Cushman, Miss E. W., . . .	\$2 00	<i>Amount brought forward, .</i>	\$45 00
Devens, Mrs. A. L., . . .	5 00		
Gale, Mrs. J. E., . . .	5 00	Read, Mr. William, . . .	2 00
Greenough, Mrs. J. B., . .	1 00	Riddle, Miss C. C., . . .	1 00
Hayward, Mrs. J. W., . . .	5 00	Sargent, Mr. D. A., . . .	5 00
Henchman, Miss, . . .	5 00	Swan, Mrs. S. H., . . .	5 00
Houghton, the Misses, . .	10 00	Toppan, Mrs. R. N., . . .	10 00
Leavitt, Miss M., . . .	2 00	Winlock, Mrs. J., . . .	1 00
Peabody, Mrs. Charles, . .	10 00	<hr/>	
<hr/>			\$69 00
<i>Amount carried forward, .</i>	\$45 00		

DORCHESTER BRANCH.

Through Mrs. J. HENRY BEAN.

Barry, Mrs. Elizabeth S., . .	\$1 00	<i>Amount brought forward, .</i>	\$15 00
Bartlett, Mrs. S. E., . . .	1 00		
Bean, Mrs. J. Henry, . . .	1 00	Hall, Mrs. Henry, . . .	1 00
Bennett, Miss M. M., . . .	1 00	Hawkes, Mrs. S. L., . . .	1 00
Bird, Mrs. John L., . . .	1 00	Hearsey, Miss Sarah E., . .	1 00
Brigham, Mrs. Frank E., . .	2 00	Hemmenway, Mrs. Edward A.,	1 00
Callender, Miss, . . .	1 00	Humphreys, Mrs. R. C., . .	2 00
Churchill, Mrs. J. R., . . .	1 00	Jordan, Miss Ruth A., . . .	2 00
Copeland, Mrs. W. A., . . .	1 00	Laighton, Mrs. William B., .	1 00
Cushing, Miss Susan T., . .	1 00	Murdock, Mrs. Harold, . . .	5 00
Eliot, Mrs. Christopher R., .	1 00	Nash, Mrs. Edward, . . .	1 00
Faunce, Mrs. Sewall A., . .	1 00	Nash, Mrs. Frank K., . . .	5 00
Hall, Miss Adelaide, . . .	2 00	Nightingale, Mrs. C., . . .	1 00
<hr/>		<hr/>	
<i>Amount carried forward, .</i>	\$15 00	<i>Amount carried forward, .</i>	\$36 00

<i>Amount brought forward,</i>	<i>\$36 00</i>	<i>Amount brought forward,</i>	<i>\$60 00</i>
Noyes, Miss Mary E.,	1 00	Stearns, Henry D., in mem-	
Pierce, Miss Henrietta M.,	1 00	ory of,	1 00
Pratt, Mrs. Laban,	2 00	Stearns, Miss Katherine,	1 00
Preston, Mrs. John,	1 00	Stearns, Mrs. Fred P.,	2 00
Reed, Mrs. George M.,	1 00	Swan, Mrs. Joseph W.,	1 00
Robinson, Miss A. B.,	1 00	Torrey, Mrs. Elbridge (dona-	
Sayward, Mrs. W. H.,	3 00	tion),	30 00
Second Church Weekly Of-		Turner, Mr. William H.,	1 00
ferings,	1 00	Whitcher, Mr. Frank W.,	5 00
Sharp, Miss E. B.,	1 00	Whiton, Mrs. Royal,	1 00
Sharp, Mr. E. H.,	3 00	Wilder, Miss Grace S.,	2 00
Smith, Miss H. J.,	1 00	Willard, Mrs. L. P.,	1 00
Soule, Mrs. Elizabeth P.,	5 00	Wood, Mrs. William A.,	1 00
Stearns, Mrs. Albert H.,	1 00	Woodberry, Miss Mary,	1 00
Stearns, Mr. A. Maynard,	1 00	Wright, Mr. C. P.,	5 00
Stearns, Mr. A. T., 2d,	1 00		
<i>Amount carried forward,</i>	<i>\$60 00</i>		<i>\$112 00</i>

MILTON BRANCH.

Through Mrs. WILLIAM WOOD.

Barnard, Mrs. James M.,	\$1 00	<i>Amount brought forward,</i>	<i>\$25 00</i>
Brewer, Miss Eliza,	5 00	Pierce, Mrs. Wallace L.,	1 00
Briggs, Miss Sarah E.,	1 00	Richardson, Miss,	2 00
Emerson, Mrs. W. R.,	2 00	Rotch, Miss,	1 00
Gilbert, Mrs. H. J.,	5 00	Tilden, Mrs. George,	1 00
Loring, Mrs. Elisha,	3 00	Vose, Miss Caroline C.,	2 00
Loring, Miss,	2 00	Wood, Mr. William,	1 00
Morse, Mrs. Samuel A.,	1 00		
Perkins, Mrs. Charles E.,	5 00		<i>\$33 00</i>
<i>Amount carried forward,</i>	<i>\$25 00</i>		

WORCESTER BRANCH.

Through Mrs. EDWARD W. KINSLEY.

Allen, Miss Katherine,	\$10 00	<i>Amount brought forward,</i>	<i>\$29 00</i>
Allen, Mrs. Lamson,	1 00	Comins, Mrs. Edward I.,	1 00
Ball, Miss Helen A.,	1 00	Day, Mrs. John E.,	4 00
Ball, Mrs. Phineas,	1 00	Day, Miss Edna Frances,	1 00
Brigham, Mrs. John S.,	1 00	Easton, Miss Marie Louise,	1 00
Clark, Mrs. Henry,	10 00	Fay, Mrs. H. B.,	4 00
Clark, Miss Harriet E.,	5 00		
<i>Amount carried forward,</i>	<i>\$29 00</i>	<i>Amount carried forward,</i>	<i>\$40 00</i>

<i>Amount brought forward,</i>	<i>\$40 00</i>	<i>Amount brought forward,</i>	<i>\$94 00</i>
Fobes, Mrs. Celia E.,	1 00	Sinclair, Mr. John E.,	1 00
Fowler, Mrs. Elwyn H.,	1 00	Sinclair, Mrs. John E.,	1 00
Gage, Mrs. Homer,	5 00	Thayer, Mrs. Adin,	5 00
Gates, Mrs. Charles L.,	1 00	Thayer, Mrs. Edward D.,	10 00
Harrington, Mrs. Gilbert H.,	1 00	Torrey, Mrs. Lewis H.,	1 00
Kinsley, Mrs. Edward W.,	1 00	Washburn, Mrs. Charles G.,	25 00
Knowles, Mrs. Francis B.,	20 00	Wheeler, Mrs. Leonard,	5 00
Lowell, Mr. Alfred S.,	5 00	Wood, Mrs. Edward M.,	6 00
Morgan, Mrs. Charles F.,	1 00	Wyman, Miss Florence W.,	1 00
Morse, Mrs. Emma de F.,	1 00		
Pratt, Mrs. Henry S.,	1 00		\$149 00
Rice, Mrs. William E.,	5 00	Less amount sent to Miss M.	
Richardson, Mrs. W. A.,	5 00	J. Jones for Peter Salmon,	
Schmidt, Mrs. Henry F. A.,	1 00	June 20,	50 00
Scofield, Mrs. J. M.,	5 00		
			\$99 00
<i>Amount carried forward,</i>	<i>\$94 00</i>		

FORM OF BEQUEST.

I hereby give, devise and bequeath to the PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL FOR THE BLIND, a corporation duly organized and existing under the laws of the Commonwealth of Massachusetts, the sum of _____ dollars (\$ _____), the same to be applied to the general uses and purposes of said corporation under the direction of its Board of Trustees; and I do hereby direct that the receipt of the Treasurer for the time being of said corporation shall be a sufficient discharge to my executors for the same.

.....

FORM OF DEVISE OF REAL ESTATE.

I give, devise and bequeath to the PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL FOR THE BLIND, a corporation duly organized and existing under the laws of the Commonwealth of Massachusetts, that certain tract of real estate bounded and described as follows:—

(Here describe the real estate accurately)

with full power to sell, mortgage and convey the same free of all trusts.

.....

NOTICE.

The address of the treasurer of the corporation is as follows :

Mr. WILLIAM ENDICOTT, Jr.,
No. 115 Devonshire Street,
Boston, Mass.

SIXTY-FIRST ANNUAL REPORT
OF
THE TRUSTEES
OF THE
MASSACHUSETTS
SCHOOL FOR THE FEEBLE-MINDED
AT WALTHAM,
FOR THE
YEAR ENDING NOVEMBER 30, 1908.

BOSTON:
WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
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1909.

APPROVED BY
THE STATE BOARD OF PUBLICATION.

CONTENTS.

	PAGE
Trustees for 1908-1909,	5
Officers for 1908-1909,	6
Members of the Corporation,	8
Trustees' Report,	9
Superintendent's Report,	15
Treasurer's Report,	26
Financial Statement,	28
Classification and Methods of Training and Instruction,	34
Laws relating to the School,	40
Terms of Admission,	47
Rules and Regulations,	48
By-laws of the Corporation and Trustees,	50
Notice,	53

TRUSTEES FOR 1908-1909.

President.	Vice-President.
WILLIAM W. SWAN.	FRANK G. WHEATLEY.
Treasurer.	Secretary.
RICHARD C. HUMPHREYS.	CHARLES E. WARE.
Auditor.	
<hr/>	
Trustees.	
CHARLES FRANCIS ADAMS, 2d,	CONCORD.
FRANCIS J. BARNES,	CAMBRIDGE.
FRANCIS BARTLETT,	BOSTON.
JOHN L. BRACKETT,	NEWTON.
THOMAS W. DAVIS,	BELMONT.
FREDERICK P. FISH,	BROOKLINE.
FELIX E. GATINEAU,	SOUTHBRIDGE.
CHARLES S. HAMLIN,	BOSTON.
WILLIAM W. SWAN,	BROOKLINE.
CHARLES E. WARE,	FITCHBURG.
JOSEPH B. WARNER,	BOSTON.
FRANK G. WHEATLEY,	ABINGTON.

State Board of Visitors, ex officio.
GOVERNOR, LIEUTENANT-GOVERNOR, SECRETARY OF STATE,
PRESIDENT OF THE SENATE, SPEAKER OF THE HOUSE,
CHAPLAINS OF BOTH HOUSES,

AND MEMBERS OF THE GENERAL COURT.

OFFICERS FOR 1908-1909.

Superintendent.

WALTER E. FERNALD, M.D.

Assistant Physicians.

WINFRED O. BROWN, M.D.

ANNA M. WALLACE, M.D.

FREDERIC J. RUSSELL, M.D.

EDITH E. WOODILL, M.D.

Matron.

Miss AUGUSTA DAMRELL.

Teachers.

Miss L. L. MOULTON.

Miss LOUISE D. BURLEIGH.

Miss ALICE BABEUF.

Miss BEATRICE W. BRIDGES.

Miss DOROTHY EARLL.

Director of Physical Training.

Miss CLARA B. ELLIS.

Sloyd Teacher.

Miss SIGRID WAHLBERG.

Teacher of Domestic Training.

Miss ANNIE W. SMITH.

Music Teacher.

Miss ELIZABETH B. BATES.

Handwork Teachers.

Miss LUISE NILSSON.

Miss BESSIE CHISHOLM.

Training Teachers.

Miss SARAH L. CRABTREE.

Miss LENA LOSEE.

Instructors in Manual and Physical Training.

Mr. ARCHIBALD D. CROWELL.

Mr. CHARLES GLAZEBROOK.

Mr. WILLIAM McDONALD.

Mr. LEROY BENT.

Mr. EUGENE WILMOTT.

Mr. KENNETH KERR.

Mr. K. LEE CROWELL.

Bookkeeper.	Assistant Bookkeeper.
Miss KATHERINE G. SAYWARD.	Miss JENNIE WHITING.

Stenographers.	
Mrs. MARY MOLONY.	Miss MARION SAWYER.

Kitchen Matron.
Miss. ADDIE M. WILDER.

Storekeepers.	
Mrs. MABEL W. TRAFTON.	Mr. WESLEY JACQUES.

Matrons at Waltham.	
FARM HOUSE,	Miss CLARA McPHEE.
BOYS' DORMITORY,	Miss CLARA BLOIS.
WEST BUILDING,	Miss MILDRED HELMS.
NORTHWEST BUILDING,	Miss MARGARET MEEHAN.
NORTH-NORTHWEST BUILDING,	Miss ELVA GORDON.
GIRLS' DORMITORY,	Miss MABEL STEWART.
NORTH BUILDING,	Miss GERTRUDE VANDEGRIFT.
EAST BUILDING,	Miss LAURIE LOCKE.
BOYS' HOME,	Miss LILLIAN HEMPHILL.
GIRLS' HOME,	Miss ELSIE BOYD.

Matrons at Templeton Colony.	
Mrs. BELLE HEDMAN.	Miss ELIZABETH H. BARNES.
Mrs. LAVINIA DONNELL.	Mrs. KATHERINE LAUGHTON.

Supervisors at Templeton Colony.	
Mr. JOHN HEDMAN.	Mr. WELLINGTON HANSEL.
Mr. JOHN J. DONNELL.	Mr. CECIL LAUGHTON.

MEMBERS OF THE CORPORATION.

Charles Francis Adams, 2d, Concord.
Francis J. Barnes, M.D., Cambridge.
Mrs. Isabel Barrows, New York.
Rev. Samuel Barrows, New York.
Francis Bartlett, Boston.
John L. Bates, Boston.
Mrs. Luann L. Brackett, Newton.
Charles P. Bowditch, Jamaica Plain.
Miss Ida Bryant, Boston.
Walter Channing, M.D., Brookline.
Eliot C. Clarke, Boston.
Charles R. Codman, Boston.
Franklin L. Codman, Dorchester.
Mrs. Elizabeth E. Coolidge, Boston.
Owen Copp, M.D., Brookline.
Elbridge G. Cutler, M.D., Boston.
Mrs. Alice T. Damrell, Boston.
Miss Dorothy Damrell, Dover.
Thomas W. Davis, Belmont.
Henry G. Denny, Boston.
Francis H. Dewey, Worcester.
William A. Dunn, M.D., Boston.
Rev. C. R. Eliot, Boston.
Edw. W. Emerson, M.D., Concord.
Miss Ellen Emerson, Concord.
William Endicott, Jr., Boston.
Walter E. Fernald, M.D., Waltham.
Mrs. Emily A. Fifield, Dorchester.
Frederick P. Fish, Brookline.
J. Henry Fletcher, Belmont.
Felix E. Gatineau, Southbridge.
Samuel A. Green, M.D., Boston.
Rev. Edw. E. Hale, Boston.
Rev. C. E. Harrington, Holliston.
Charles S. Hamlin, Boston.
Mrs. Huybertie Pruyn Hamlin, Boston.
Augustus Hemenway, Boston.
Mrs. Helen P. Hoar, Concord.
Miss Abby P. Hosmer, Concord.
Clarence B. Humphreys, Boston.

Richard C. Humphreys, Boston.
Thomas L. Livermore, Boston.
Mrs. Margaret C. Loring, Brookline.
John Lowell, Boston.
Arthur Lyman, Waltham.
Frederick Goddard May, Boston.
John C. Milne, Fall River.
Mrs. Emily M. Morison, Boston.
Miss Eleanor S. Parker, Brookline.
Herbert Parker, Lancaster.
Mrs. Anna May Peabody, Boston.
Rev. Francis G. Peabody, Cambridge.
Frederick W. Peabody, Boston.
Mrs. Elizabeth B. Perkins, Boston.
William Taggard Piper, Cambridge.
James J. Putnam, M.D., Boston.
Mrs. Laura E. Richards, Gardiner, Me.
Franklin B. Sanborn, Concord.
Charles S. Sargent, Brookline.
Fred'k C. Shattuck, M.D., Boston.
George B. Shattuck, M.D., Boston.
Benj. F. Spinney, Lynn.
Henry R. Stedman, M.D., Brookline.
Mrs. Mabel W. Stedman, Brookline.
Mrs. Elizabeth Stone, Waltham.
Mrs. Helen G. Swan, Brookline.
William W. Swan, Brookline.
C. B. Tillinghast, Boston.
Mrs. Annie P. Vinton, Boston.
Gilman Waite, Baldwinville.
Erskine Warden, Waltham.
Charles E. Ware, Fitchburg.
Miss Mary Lee Ware, Boston.
Joseph B. Warner, Boston.
George A. Washburn, Taunton.
Mrs. Kate Gannett Wells, Boston.
F. G. Wheatley, M.D., N. Abington.
Mrs. Edith Prescott Wolcott, Boston.
Henry A. Wood, M.D., Waltham.
Miss Caroline Yale, Northampton.

The Commonwealth of Massachusetts.

TRUSTEES' REPORT.

MASSACHUSETTS SCHOOL FOR THE FEEBLE-MINDED,
WAVERLEY, Dec. 1, 1908.

*To the Corporation, His Excellency the Governor, the Legislature, and
the State Board of Insanity.*

The trustees have the honor to present their annual report for the year ending Nov. 30, 1908.

We have now 1,311 feeble-minded inmates, of whom 1,130 are at Waverley and 181 at Templeton. For the details of the different classes, admissions, discharges and deaths, we refer you to the superintendent's report, submitted herewith.

Under the change in the by-laws, made at the last annual meeting, brought about by the requirements of the new methods of bookkeeping instituted by the Commonwealth, our treasurer, Mr. Richard C. Humphreys, is relieved of the care and disbursement of the funds received from the Commonwealth, although he still has control of the funds belonging to the corporation. The superintendent now acts as treasurer of the institution, receiving and disbursing, under the direction of the trustees, all moneys appropriated by the Commonwealth for the maintenance and development of the school and all moneys accruing from its operation. He is under bonds for \$10,000.

The year just closed has seen the completion and occupation of the buildings which we asked for two years ago.

The addition to the northwest building and to the east building, designed for special cases, which were authorized by the Legislature of 1906, are both practically finished, and both will be occupied by January 1 next.

The two additional dormitories at Eliot colony at Templeton

have been completed and are ready for occupancy, but they will not be used before spring, as the boys who would have gone there have been sent to Wrentham to form the nucleus of the new school. We have plenty of material, but patients of suitable age must be fitted for institutional life at Waverley before they can be cared for or be happy at the colony. Those whom we now have at Waverley who are fitted for colony life cannot well be spared at present without crippling the work of the school.

Out of the appropriation made for those two additional dormitories just mentioned, a toilet wing, a new room and a new kitchen have been built there. Eliot colony as now equipped has capacity for 100 inmates instead of 50.

We shall ask for a special appropriation of \$6,000 this year to remodel the Waite house, so called, at the farm colony, into a dormitory to hold 50 boys, also to enlarge the kitchen and living room in the farmhouse sufficiently to provide the additional facilities necessary for the care of these new inmates.

We shall also ask for a special appropriation of \$5,500 for replacing the wooden stairways in the west building and the girls' dormitory with iron, and for replacing the present outside fire escapes on the boys' dormitory.

At Waverley we have expended successfully this year between \$2,000 and \$3,000 out of our own appropriations upon the gypsy moth pest. Our grounds showed a marked contrast to those of some of our neighbors, who did not take any steps to prevent the ravages of these marauders.

It was suggested in our last annual report that a distinction existed which ought not to exist between the status of the indigent insane and that of the indigent feeble-minded, and a change in the law was recommended. That recommendation was heeded, and the Legislature, by chapter 629 of the Acts of 1908, provided that such distinction should no longer exist, and that the class of indigent feeble-minded children should have the benefit of State care and support instead of being rated as paupers on the books of their respective cities and towns. A copy of the act is added to the list of laws relating to this school, printed herewith.

With the completion and use of our new manual training

building a great stride forward has been made in the variety and quantity of new occupations provided for our boys and girls. Constant improvements and innovations are being made, which add to the value of this branch of the work. As an example, on one day in the sewing room thirty-three pairs of corduroy trousers were made and finished at the long table, where several girls, each doing some particular part of each pair, were all at work on the same job. Some other day their occupation will be dresses or aprons or some one article of wearing apparel. This opportunity of seeing something upon which they have been working begun and completed by them stimulates their interest.

Again, in the cooking school, when they offer you bread or cake which they have just made their own satisfaction in the work is apparent.

The year at the colony has been most successful. At the farmhouse colony alone were raised 1,612 bushels of potatoes, 735 bushels of carrots, 250 bushels of turnips, 250 bushels of beets, 4,500 heads of cabbage, 14,000 pounds of squash, 4,000 pounds of pumpkins, 175 bushels of onions, 100 bushels of tomatoes and quantities of beans, parsnips, cucumbers and sweet corn. Three hundred tons of corn were put into the silo. This is the report from one of the four colonies.

Besides all the products needed for use at the colony, eight full car loads were shipped to Waverley. Here, again, as we never tire of reporting, the boys take an intense interest in the planting, growing, harvesting and shipping of their crops. They feel that these great crops are the results of their efforts.

In October, 1905, the school received a visit from the British Royal Commission on the Care and Control of the Feeble-minded. Their report upon their visit to American institutions, contained in eight large pamphlet volumes, has recently been received. The impression made upon them by our institutions, and particularly by Waverley and Templeton, was deep. Their report is interesting, although much of it deals with facts familiar to us all. Their conclusions contain a discriminating judgment upon what has been, and is being, accomplished in America. A few paragraphs from their report we would like to quote.

This [the Massachusetts School for the Feeble-minded] is a most interesting institution, embodying in itself the whole history of American methods of dealing with the feeble-minded, from its earliest beginnings in the training school for the idiot to its latest development, — the colony for the permanent custodial care and employment of defectives unfit for free life. Its superintendent is Dr. W. E. Fernald, who is not only one of the greatest authorities in the United States of America on the medical aspects of the care of mental defectives, but is an institution manager of great energy, enthusiasm, resource and capacity. . . .

But the utilisation of an estate for the training of the feeble-minded appeared to our members to be illustrated best by the two joint institutions of Waverley and Templeton, in Massachusetts. . . .

The low cost of erection of buildings in recent years is due to the opinion now held by the American managers that the feeble-minded do not require and are not benefited by anything like the elaborate accommodation provided for lunatics, and even in the lunatic asylums which we visited opinion was evidently ripening in favor of simpler and less costly arrangements. In the farm colony at Templeton, Massachusetts, the inmates were housed almost as modestly as the ordinary labourer would be on an ordinary farm, and the men and boys there seemed to be as contented and as healthy as any we had seen elsewhere, and to be doing remunerative work to an extent which, having regard to their low mental condition, was unique in the experience of any of us. . . .

The training schools at Waverley, and their adjunct, the Templeton colony, appear to embody the ideas of Dr. Fernald and of the State commissions of Massachusetts as a permanent provision for the training and employment of custodial cases, whether feeble-minded, epileptic or even of certain types of insanity. They called our attention with enthusiasm to its possibilities, now beginning to be realized, not only in respect of the health and well-being of the colonists, and of the economical utilisation, under easy control, of such capacities as they had, but also of its adaptability to every class of defective, of the opportunities it gave for experiment and variety in employment, and of the prospect of its organic growth, step by step, into an institution which would not only benefit and lift up the unfortunate sufferers, but would reconcile their relatives and the whole community to the permanent detention of people whose freedom would mean a burden to their families, a nuisance to the community, and a danger to coming generations. The ideal, and of course, to a more limited extent, the practical, realisation made a most favourable impression on the commissioners. It was a pleasure to see the happiness of the colonists, the humanity of their treatment, and the social utility of their employment in reproductive work, with prospects of good economical results. . . .

To the report of our members on their visit to America (Vol. VII.) we desire to draw special attention. We propose many changes which

will, we hope, facilitate an education such as is here described, followed by employment and occupation of healthy and useful nature, which is now entirely beyond the reach of the mentally defective. For neither does their education at present, however careful and costly it be, fit them for it, nor has the community heretofore recognised the necessity of making provision for them after childhood in any organized or systematic manner.

This all goes to show that America is in the forefront in her treatment of the defectives, and that England, appreciating the fact, is desirous of following in her lead.

In 1907 a law was enacted providing for an adjudication of the mental status of any inmate of the school whose commitment to, or continuance in, the school has been questioned. (The law in full is quoted at the end of this report.) This law was passed upon the recommendation of the trustees, but under it the trustees do not seek to avoid responsibility for the detention of each and every inmate of the institution. Hitherto not more than half of our children have been committed to our charge by judicial proceedings. Indeed, it was only when the custodial department had become established as an important part of the school that any of our inmates came to us under an order of a court. But the trustees have always retained the power of discharge. This power they have freely exercised.

Pupils in the school department and individuals in the custodial department are frequently taken home on vacation. When the time comes for the return to the school often application is made for the discharge of the inmate. This request in many instances raises questions difficult to answer. If the trustees accede to the request, it is because they feel that no harm will result and good may follow from the release. If the trustees are in doubt, but feel that they ought to refuse the request, they may now bring the question before the probate court of Middlesex County for judicial determination. Many a case that might safely be taken home for a short vacation would, if returned to entire freedom, become a menace to the community, and not infrequently would become an applicant for readmission. Again, not every inmate is a proper person to be taken home for vacation. This is particularly

the case with many young women in the school, whose behavior here, under the discipline of the school, thoughtfully and kindly administered, is most excellent. A trustee would redden in the face to say before any one of the girls waiting upon him at the luncheon table that she is feeble-minded. Their parents come and find their girls have a quiet, gentle manner that comes from association with persons of refinement. They wish to take them out of the school, and feel that they are deprived of their rights when the trustees decline to discharge them. But they lose sight of the fact that the girl who came to us dirty, dull and listless, and has become in the months, or years, of careful nurture and training neat, clear eyed and interested in her work, would soon drop back to her former condition if the supports which we have placed about her were removed. In other words, the apparent gain that has been made can be maintained in many cases only under the forms of life which exist at the school.

The trustees are not unmindful that human liberty to those who can appreciate it is the sweetest of all blessings, and so they have provided, in framing this law, that every kind of a case may be brought before the court. They feel, however, that their responsibility, which is in a sense the responsibility of experts, is great. Have they not a duty to the public as well as to the parent and the child in the attitude they shall take on each case as it arises? We think they have, and that it is the paramount duty.

CHARLES FRANCIS ADAMS, 2D.
FRANCIS J. BARNES.
FRANCIS BARTLETT.
LUANN L. BRACKETT.
THOMAS W. DAVIS.
FREDERICK P. FISH.
FELIX E. GATINEAU.
CHARLES S. HAMLIN.
WILLIAM W. SWAN.
CHARLES E. WARE.
JOSEPH B. WARNER.
FRANK G. WHEATLEY.

SUPERINTENDENT'S REPORT.

To the Trustees of the Massachusetts School for the Feeble-minded.

I hereby submit the following annual report for the year ending Nov. 30, 1908:—

	Males.	Females.	Totals.
Number present Nov. 30, 1907,	715	519	1,234
Admitted during the year,	187	94	281
School cases,	140	48	188
Custodial cases,	47	46	93
Whole number of cases during the year,	902	613	1,515
Discharged during year,	126	54	180
Died during year,	17	7	24
Number present Nov. 30, 1908,	759	552	1,311
State patients,	121	128	249
City and town patients,	203	187	390
Private patients,	28	22	50
Massachusetts school beneficiaries,	368	183	551
New England beneficiaries,	31	27	58
Invested funds, supported by,	8	5	13
Daily average number of patients,	720	523+	1,243
Number Nov. 30, 1908, at school,	578	552	1,130
Number present Nov. 30, 1908, at colony,	181	—	181
Applications during the year,	—	—	528

Of the admissions, 137 were young, improvable pupils; 53 males and 42 females were over fourteen years of age, — a large proportion of these adults being cases capable of much improvement; 28 were feeble physically and of the idiotic type; 15 were cases of spastic paralysis; 11 were of the Mongolian type of idiocy; 6 were insane and not feeble-minded; 5 were totally blind; 4 males were of the semi-insane criminal type; 4 boys had shown mania for setting fires; 4 were hydrocephalic; 2 were cases of sporadic cretinism; 1 was a case of pseudo-muscular hypertrophy; 1 was totally deaf. Some of the cases appeared in several of the above groups.

Of the 180 cases discharged during the year, 48 were kept at home by their friends for various reasons; 4 were kept at home to attend public school; 2 went to work for wages; 4 ran away and were not returned; in 4 cases the parents moved to another State; in 2 cases the family went to Europe; 1 was transferred to the new Maine school; 1 was discharged as insane and not feeble-minded.

Fifteen cases — 1 male and 14 females — were committed to insane hospitals. Six of these cases were admitted during the year, and were insane and not feeble-minded when admitted. The other cases illustrate the fact that the imbecile is very likely to develop quite typical forms of insanity as a part of his life history.

Sixty-two epileptics — 37 males and 25 females — were transferred to the State Hospital for Epileptics at Palmer by order of the State Board of Insanity. These epileptics, all over ten years of age, were difficult to classify with the feeble-minded, and their removal has greatly improved the classification of our patients. The epileptic patients themselves can be treated with much greater success in a hospital for epileptics.

Forty-five of the older boys were transferred to the Wrentham school by order of the State Board of Insanity. These boys were at once put to work assisting in the development of the new institution.

For another year the inmates and employees have enjoyed remarkably good health. As in previous years, for weeks at a time there has been no serious case of acute illness. This immunity from disease is largely due to the active outdoor life,

well-ventilated buildings, simple, wholesome food and especially to efficient and thorough hygienic supervision by the medical staff. The small number of cases of tuberculosis is especially noticeable.

In the early summer there were 50 cases of measles, — 40 children and 10 employees. One very feeble patient died as the direct result of the disease, and 3 others were so enfeebled that they succumbed to other diseases within a few weeks. In the autumn 21 cases of scarlet fever developed, with 1 death.

One of the detached hospital blocks is always kept in readiness for the care of the cases of contagious and infectious disease which are certain to occur at frequent intervals among a large population of children. The new hospital block, or ward, was occupied in September. It is roomy and sunny and affords ideal accommodation for ordinary cases of illness.

We now have room in the hospital for 44 sick people. The small number of cases of acute illness has allowed the hospital wards to be used largely for the care of little children who are exceedingly delicate and feeble but not actually ill. Some of these are cases of helpless, bedridden idiocy, who need constant nursing and tender care. The attached diet kitchen makes it easy to serve nutritious and appetizing food. On sunny days the beds of these little patients are drawn under the shade of nearby trees, or into the adjoining outdoor pavilion. Our present hospital facilities enable us to secure almost ideal care for these most helpless children.

There were 24 deaths during the year, a very small number considering the large population and the feeble physical condition of many of the inmates. Five deaths were from acute pneumonia, 3 from epilepsy, 2 each from measles, organic disease of the brain and pulmonary tuberculosis, and 1 each from gangrenous stomatitis, influenza, exhaustion of idiocy, septic endocarditis, rheumatic fever, chronic heart disease, gastro-enteritis, tubercular meningitis, scarlet fever and acute peritonitis.

The following table shows the ages of the 1,311 inmates in the institution at the close of the year ending Nov. 30, 1908: —

	Males.	Females.	Totals.
Under 5 years of age,	3	3	6
From 5 to 10 years,	112	63	175
From 10 to 15 years,	208	99	307
From 15 to 20 years,	170	141	311
From 20 to 25 years,	112	112	224
From 25 to 30 years,	82	51	133
From 30 to 35 years,	39	31	70
From 35 to 40 years,	23	26	49
From 40 to 45 years,	5	12	17
From 45 to 50 years,	3	8	11
Over 50 years,	2	6	8
	759	552	1,311

The work of the school and training classes shows development and progress. An additional kindergartner has been added to the teaching staff, making better classification possible. Every child of school age is receiving the training which he seems to need.

The room formerly occupied by the hand work is now thoroughly and conveniently equipped for the training classes, with abundant equipment for the training of the special senses, color and form discrimination and hand training in great variety. Nearly all the school material in this department was made by our boys in the manual training room.

Especial attention is paid to finding a place in our community life where the graduates of the schools are given work in which the school training may be directly utilized and exercised. For instance, all the bedding, linen and clothing issued from our storerooms — thousands and thousands of individual pieces each year — is marked with pen and indelible ink by girls who were taught to write in our schoolrooms. Each of the kindergartners

and class trainers has an efficient and happy assistant who is a graduate of the schools. One of these girls even assists with simple copying and clerical work in the office.

Physical training in the broadest sense will always be one of the most important means of improving the physical and mental condition of the feeble-minded. Every pupil of suitable age in the school receives regular physical training. Formal gymnastics, musical and rhythmical drill, military drill, the ordinary games of children, competitive games and athletic contests are used in great variety, under tactful and efficient direction.

In suitable weather much of this work is carried on outdoors. The new cinder running track on the athletic field is a valuable addition. The running races and other track events, and the baseball, football and basket-ball games, are eagerly contested, and do much to develop and interest our pupils. Even the larger girls have two baseball nines who play weekly games, with great enthusiasm.

The manual and handwork classes were transferred to the new manual training building at the beginning of the fall term. The boys' manual classes occupy the first floor. One room is devoted to sloyd; one to mattress and pillow making; one to actual making of useful articles of wood at separate benches; one to painting, brush making, sandpapering, net making, mat making and cane seating; one to shoe repairing; and the "weave room" contains six hand looms, where the boys weave first-class crash for towels, and serviceable and attractive rag carpets. The convenient arrangement of separate tables and stock boxes for each industry greatly facilitates the systematic handling of the large numbers of boys who daily spend a short time at several of these occupations. This training is not for the brighter boys alone, but is successfully given to many boys who are not capable of strictly school work. As far as possible this manual training is directly applied towards the production of results which have practical intrinsic value. The needs of a large institution furnish an outlet for everything the boys make. The fact that the boy sees his handwork put to actual use is a most powerful incentive.

The second floor in the manual building is devoted to the girls' handwork classes. One large room makes a convenient

domestic training room; one is a class room for teaching sewing; one has a spinning wheel, three knitting machines, three looms, tables for cutting, sewing and braiding rugs for rag carpets, a table for hand looms and a table for sewing braided rugs; another large room contains tables for separate classes in pillow lace making, basket making, knitting, crocheting, embroidery and fancy work, hooking rugs and a frame for net making. Each table is devoted to its particular industry, and holds the stock box for that industry, with the necessary materials, tools and appliances all ready for work. Each table is large enough to accommodate a class of twelve. The class comes in and is immediately put to work, with no time lost assembling material. A bulletin board on the wall at the head of each table or loom or machine shows the names of the pupils in each class, and the hour for that class. This organization permits a large number of pupils to receive the training, with no confusion and no loss of time. One class quietly follows another all day long. As with the boys, this hand training is applicable not only to the brighter pupils, but to many who will never be capable of being trained in the schoolrooms. The facilities afforded by this new building have enormously added to our power to develop our pupils.

In the domestic science room classes of girls receive accurate instruction in ordinary housework. They are taught to wash dishes, to make a fire in the kitchen range, to brush the stove, to wash a potato, to properly boil or bake a potato, to prepare other vegetables, to cook a beefsteak or other meat, to make bread and even cake, to lay a table and to properly serve a meal. Some of the advanced classes will cook an entire dinner; one pupil builds the fire, one makes the soup, another cooks the vegetables, another the meat, dessert, etc.; one lays the table, and finally one waits on the table while the rest of the class sit down and enjoy the meal they have prepared. This class work is directly applied in the domestic economy of the school. The pupils who do the best work in the class room are promoted to apply their acquired skill in the various kitchens and dining rooms, to their very great pride and satisfaction. Some of them have developed a good deal of skill in simple cookery. Nearly all have ceased to regard kitchen work as mere drudgery.

With the girls generally the introduction of the musical training, the domestic training and the fascinating forms of handwork — embroidery, fancy work, etc. — has opened up many natural sources of feminine interest and pleasure. This greatly broadened life has apparently made a permanent change in the relation of the girls as a whole to the school and to life generally. As a class they have become much better contented, better behaved and have become infinitely more like normal women in every way.

This noticeable change in the apparent mental condition of so many of our girls has opened up a new set of perplexing problems, as has already been called attention to in the report of the trustees.

It often happens that a girl is committed to the school because she has been found impossible at home and in the community. She is dull mentally, idle, untidy in dress, disobedient, willful, incorrigible, inefficient at any kind of work. Probably she has been unchaste, perhaps has had one or more illegitimate children; she may have a court record. She comes to us hard and unattractive, impudent, insolent and useless. She is put in school; she is taught to read and write, to sing, to cook, to sew, to knit. With good, simple food, regular bathing, physical exercise, regular habits, etc., she becomes strong, bright eyed and attractive. She becomes quiet, obedient and well behaved. Her friends see the change, but do not realize that the improvement is the result of and depends upon the environment of the school, the influence of association with refined women, absence of temptation, and constant supervision and direction. They demand that she may be sent home, that the family may have the benefit of her work or that she may be put out to service for wages. They do not realize that with the best possible home supervision the girl will almost always rapidly deteriorate, and quickly return to her old ways. They do not understand that the mental weakness which was the cause of the moral delinquency is a permanent condition, and in all probability will reassert itself if the constant supervision is taken away. We now have at least twenty cases where the friends are urgently asking for the discharge of female patients whose history before and after entering the school closely cor-

responds to the hypothetical condition described above. The apparent fitness of a girl of this type for home life, as a result of the school training, is so real that a magistrate would hesitate to commit the very girl he unhesitatingly committed, at the urgent request of the same relatives, only a few months previously. The fact that every one of the girls of this type almost certainly returns to her previous troublesome mental, social and moral habits is well understood by every one familiar with mental defectives.

This year, two girls who had been admitted to the school under the conditions described above improved so much in every way that the relatives honestly believed that it was not fair to keep them here longer, and also wished to have the girls at home to assist with the housework. Prominent people became interested and urgently requested the discharge of the girls. The families promised to closely watch and guard them. The trustees finally permitted these girls to return to their homes. They quickly became unmanageable and wayward, and both became pregnant within a few months of their discharge. Both girls were then recommitted to the school.

The existence of this large institution is largely due to the demands of parents, physicians, clergymen, court officers, social workers, and thoughtful people generally, that feeble-minded women should be permanently removed from the community. In this State there is an urgent demand for the commitment and permanent detention of the higher grade cases of defect, where the social incapacity and the moral weakness are more obvious than the mental backwardness. These cases cannot support themselves, and are most undesirable and troublesome members of society. Under institution conditions, protected, supervised and helped as they are, they soon behave much like normal women. If sent out into the community they almost invariably return to their former habits. It is not difficult to obtain powerful pressure to discharge these cases. Indeed, the fact, well known to alienists, that these girls are often attractive and bright-looking, and are able to talk glibly and plausibly, is very convincing, even to the courts. We have, therefore, to face the anomalous fact that it is easy to have a class of patients committed to the school under a permanent

commitment who in a few months are likely to impress the same court as cases who ought at least to be released on trial, on the principle that no person ought to be permanently deprived of his liberty on the mere assumption that he will in all human probability misbehave or commit crime.

This state of affairs is largely due to the fact that the medical and popular appreciation of the existence of this most dangerous class of so-called moral defectives has not yet been adequately formulated into workable legal definitions and precedents.

Each year several boys or girls are properly committed here as feeble-minded who have been arrested, and are in the custody of the criminal court for some crime or misdemeanor. The commitment to the school causes the criminal proceedings to be abandoned. In the majority of these cases, within a few weeks after admission the parents urgently demand the release of the patient, on the plea that he has been sufficiently punished. It is not easy to make the friends understand that a commitment under these circumstances ought not to be considered as a mere excuse for evading legal punishment for crime.

During the past year 4 boys and 2 girls under the custody of the juvenile court have been sent to the school for observation and diagnosis, pending the final disposition of their cases by the court.

The current expenses of the year amounted to \$238,640.07, or \$3.67+ per capita.

The following important improvements and repairs have been made during the year and charged to current expense account: —

The fire escapes on the girls' dormitory, north building, east building, north-northwest building and administration building have been lowered and rebuilt, and access to them is obtained by doors instead of windows. Nine new fire escapes have been added to these buildings. Over 1,000 feet of fire hose have been added in standpipes attached to the buildings. A new standpipe, with a hose wagon and 200 feet of fire hose, has been placed at the farm group. Nineteen tinned fire doors have been placed in the buildings. A new electric garment-cutting machine has been placed in the sewing room. One

thousand sixty-six square yards of telford road have been constructed. The excavation for two new buildings and the grading around six new buildings have been done by our regular force of employees and the boys. A new tennis court has been made on the girls' playground. A 220-yard oval cinder track has been made on the athletic field.

The work of controlling the ravages of the gypsy moth has been continued at the proper seasons, and the cost, about \$2,000, charged to current expense account. We seem to have the pest under good control, although the work will have to be continued for several years to come.

The farm colony at Templeton has had a prosperous and successful year in every way. The boys have enjoyed excellent health. We have cleared and drained 40 acres of wild land. Notwithstanding the drought the crops were good, and eight full carloads of fruit and vegetables were shipped to Waverley.

We have again been called upon to lose the services of an experienced and valued physician. Dr. G. S. Bliss, who had given earnest and most efficient service to the school, was appointed medical superintendent of the new Maine School for the Feeble-minded, and assumed his new duties in August, 1908.

In February, 1908, Dr. W. O. Brown and Dr. F. J. Russell were added to the medical staff, and have rendered efficient and satisfactory service.

At the close of the year we have a population of 1,311. When the new buildings at Waverley and at Templeton are occupied we shall have 1,440 inmates. The development of the new institution at Wrentham should relieve the pressure on this school for the admission of new cases. For many years the energies of the school have been largely spent in the construction and organization of the rapidly growing institution. We hope that the time is near when more attention may be paid to the scientific study of the rich material furnished by our large population. As a first step in this direction we are now elaborating our system of case records.

The rapid growth of the school, the admission and assimilation of a large number of new pupils, the reorganization of the

manual and handwork classes, the marked increase in the mere work of feeding and clothing and caring for our inmates, have made a very busy year for the officers and employees of the school. I wish to thank them for the splendid, loyal, cheerful spirit, and the faithful work which has made this one of the most happy and successful years in the history of the school.

Respectfully submitted,

WALTER E. FERNALD, M.D.,
Superintendent.

Dec. 1, 1908.

TREASURER'S REPORT.

The treasurer of the corporation of the Massachusetts School for the Feeble-minded submits the following report for the year ending Nov. 30, 1908:—

RECEIPTS.

Balance on hand Dec. 1, 1907,	\$8,212 78
Income from funds,	2,022 80
Principal received:—	
C. S. Judkins, mortgage,	\$2,000 00
Working capital returned,	4,000 00
	<hr/> 6,000 00
	<hr/> \$16,235 58

PAYMENTS.

Board of inmates, paid by income,	\$2,323 64
Expenses:—	
Auditor,	\$100 00
Printing reports,	47 94
Bonus on Chicago, Burlington & Quincy	
bonds (at 102 $\frac{3}{4}$),	115 00
Bonus on Union Pacific bonds (at 102 $\frac{3}{4}$),	115 00
	<hr/> 377 94
Principal invested:—	
4 Chicago, Burlington & Quincy bonds (par),	\$4,000 00
4 Union Pacific bonds (par),	4,000 00
	<hr/> 8,000 00
Balance on hand Dec. 1, 1908,	5,534 00
	<hr/> \$16,235 58

INVESTED FUNDS DEC. 1, 1908.

2 bonds Boston & Maine,	\$2,000 00
3 bonds Boston & Lowell,	3,000 00
1 bond town of Belmont,	1,000 00
5 bonds city of Waltham,	5,000 00
6 bonds Illinois Central,	6,000 00
3 bonds city of Newton,	3,000 00
1 bond town of Stoughton,	1,000 00
5 bonds Nashua Street Railway,	5,000 00
10 bonds Baltimore & Ohio,	10,000 00
4 bonds Chicago, Burlington & Quincy,	4,000 00
4 bonds Union Pacific,	4,000 00
4 shares State Street Trust,	400 00
50 shares Trimountain Trust,	5,000 00
Cash in Boston Safe Deposit and Trust Company,	5,534 00
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	\$54,934 00

RICHARD C. HUMPHREYS,
Treasurer.

FINANCIAL STATEMENT.

To the Trustees of the Massachusetts School for the Feeble-minded.

I respectfully submit the annual report of the finances of the Massachusetts School for the Feeble-minded for the year ending Nov. 30, 1908.

ACCOUNT OF MAINTENANCE, 1908.

Receipts.

Amounts available for maintenance during the year: —

Appropriation for deficit in 1907 maintenance account,	\$2,530 68
Appropriation for maintenance, 1908,	246,989 00
	<hr/>
Total available for maintenance, 1908,	\$249,519 68

Expenditures.

Balance of 1907 bills,	\$2,530 68
Expenditures for maintenance, 11 months,	
1908,	\$218,428 70
Bills payable for November, 1908,	20,211 37
	<hr/>
Total for maintenance, 1908,	238,640 07
Balance maintenance appropriation, Dec. 1, 1908 (unexpended),	8,348 93
	<hr/>
	\$249,519 68

ACCOUNT OF SPECIAL APPROPRIATIONS, 1908.

Balance of special appropriations, Dec. 1, 1907,	\$80,854 87
Total of special appropriations for 1908,	—
	<hr/>
	\$80,854 87
Expended during the year,	\$62,911 25
Bills payable for November, 1908,	560 76
	<hr/>
	63,472 01
	<hr/>
Balance special appropriations, Dec. 1, 1908,	\$17,382 86

ACCOUNT OF COLLECTIONS AT SCHOOL, 1908.

Received from individuals for support of patients, . . .	\$95,278 30
Received from sales, etc., viz.:—	
Clothing and clothing supplies,	560 31
Farm, stable and grounds,	176 19
Miscellaneous,	405 19
Interest on bank account,	210 46
	<hr/>
Total receipts paid into State treasury, . . .	\$96,630 45

VALUATION, NOV. 30, 1908.

Real Estate.

Land,	\$70,670 00
Buildings,	712,687 57
	<hr/>
	\$783,357 57

Personal Estate.

Provisions and groceries,	\$1,495 74
Ready-made clothing,	1,972 53
Dry goods:—	
For clothing,	1,032 52
For bedding, etc.,	1,486 37
Furnishings:—	
Beds and bedding in inmates' department, . . .	37,509 30
Other furnishings in inmates' department, . . .	25,041 94
Personal property of State in superintendent's department,	7,373 50
Fuel,	9,295 50
All other property,	781 00
Machinery and mechanical fixtures, etc.,	26,297 05
Farm, stable and grounds:—	
Live stock on farm,	10,596 25
Produce of farm on hand,	10,137 00
Carriages and agricultural implements,	8,551 80
All other property,	509 21
Drugs and medicines,	524 86
Library,	1,554 00
Other supplies undistributed,	3,772 94
	<hr/>
	\$147,931 51

ANALYSIS OF CURRENT EXPENSES FOR THE YEAR ENDING NOV. 30, 1908.

Salaries, wages and labor: —

Pay roll,	\$93,144 93
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Food: —

Butter,	\$4,091 59
Butterine,	2,451 30
Beans,	1,525 35
Bread and crackers,	57 09
Cereals, rice, meal, etc.,	2,974 09
Cheese,	125 87
Eggs,	1,512 15
Flour,	9,933 32
Fish,	1,424 52
Fruit (dried and fresh),	1,114 92
Meats,	71,951 11
Milk,	14,235 15
Molasses and syrup,	715 57
Sugar,	3,005 09
Tea, coffee, broma and cocoa,	721 98
Vegetables,	2,265 79
Sundries,	1,702 24
Yeast,	209 48
	<hr/>
	60,016 61

Clothing and clothing material: —

Boots, shoes and rubbers,	\$2,638 73
Clothing,	1,815 02
Dry goods for clothing, and small wares,	5,018 40
Furnishing goods,	169 81
Hats and caps,	20 66
Leather and shoe findings,	688 54
Sundries,	8 35
	<hr/>
	10,359 51

Furnishings: —

Beds, bedding, table linen, etc.,	\$4,017 26
Brushes, brooms, etc.,	366 01
Carpets, rugs, etc.,	226 91
Crockery, glassware, cutlery, etc.,	497 97
Furniture and upholstery,	803 92
Kitchen furnishings,	1,091 25
Wooden ware, buckets, pails, etc.,	51 59
Sundries,	107 83
	<hr/>
	7,162 74

Amount carried forward,	\$170,683 79
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<i>Amounts brought forward,</i>	.	.	.	\$2,030 02	\$224,201 79
Gratuities,	.	.	.	21 90	
Hose, etc.,	.	.	.	60 79	
Ice,	.	.	.	566 36	
Labor (not on pay roll),	.	.	.	1,171 86	
Medicines and hospital supplies,	.	.	.	763 16	
Medical attendance, nurses, etc. (extra),	.	.	.	742 46	
Manual training supplies,	.	.	.	653 45	
Postage,	.	.	.	587 55	
Printing and printing supplies,	.	.	.	10 15	
Return of runaways,	.	.	.	44 05	
Soap and laundry supplies,	.	.	.	2,080 12	
Stationery and office supplies,	.	.	.	380 05	
School books and school supplies,	.	.	.	663 68	
Travel and expenses (officials),	.	.	.	685 14	
Telephone and telegraph,	.	.	.	717 94	
Tobacco,	.	.	.	7 98	
Water,	.	.	.	1,922 00	
Sundries,	.	.	.	1,233 15	
Annual report,	.	.	.	96 47	
				<hr/>	14,438 28
Total,	.	.	.	.	<hr/>\$238,640 07

Respectfully submitted,

WALTER E. FERNALD, M.D.,
Treasurer of the Institution.

Appropriations for Buildings and Improvements.

Object.	Authorized by —			Total	Balance Dec. 1, 1907.	Expended 1907 to 1908.	Balance Dec. 1, 1908.
Land,	\$35,000 00	\$2,418 75	\$1,592 00	\$826 75
Dormitories,	77,000 00	1,014 70	324 76	689 94
Male employees' building,	.	.	.	8,000 00	2,491 99	2,491 97	02
Laundry,	4,000 00	1,796 79	1,796 79	—
Manual training school,	24,000 00	21,330 81	21,330 63	18
Hospital group,	10,000 00	9,564 00	9,564 00	—
Farmhouse addition,	2,000 00	883 08	883 08	—
Stairway,	2,500 00	387 84	387 84	—
Electric lights,	1,100 00	1,100 00	599 86	500 14
Special buildings,	30,000 00	30,000 00	16,118 45	13,881 55
Fifty patient buildings,	14,000 00	8,015 34	8,015 31	03
Nurses' homes,	30,000 00	16 32	16 32	—
Furnishing fifth colony,	2,000 00	1,835 25	351 00	1,484 25

CLASSIFICATION AND METHODS OF TRAINING AND INSTRUCTION.

The plan of detached and separate departments greatly facilitates the proper classification of our inmates, according to age and mental and physical condition, and helps us to secure to each inmate the consideration of individual wants and needs so hard to get in a large institution, where the inmates are massed in one huge building. As we are now arranged, our inmates are classified as follows: at the girls' dormitory are the girls of school grade; at the boys' dormitory and the boys' home are boys of the school department; at the north building are the adult males of the lower grade, the cases requiring much personal care and attention; at the west building are the young and feeble boys, requiring much hospital care, and the females of the lower grade; at the girls' home, the northwest building, and at the north-northwest building are the adult females who are in good bodily health, many of them graduates of our school department, and all of whom are employed in the various domestic departments of the institution; at the farmhouse and at the east building are the adult males who are regularly employed in the farm work. In the hospital are the feeble children and those acutely ill. Each of these departments has a competent matron, who lives in the building, and devotes her entire time and attention to the supervision of the personal care of the children in that department. Thus we have divided our institution into eleven comparatively small families, each with distinctive and peculiar needs, and all under the same general management. This plan retains all the benefits of a small institution, and secures the manifest advantages of a large one.

We have a larger number of pupils under instruction in the school-rooms than ever before. In trying to secure to each child the greatest improvement possible, we have been compelled to rearrange and modify our school work in some respects. In one way the increased number of pupils has simplified the work, as we are now able to so classify and grade our pupils that class work has very largely taken the place of much of the individual teaching necessary when we had a smaller number. There are distinct advantages to the child in placing him in a group of children with capacities and needs similar to his own. He profits by the mistakes of his fellows, and feels the stimulus of healthy rivalry. The teacher gives each child a larger share of her time, and is able to retain the attention of the whole class. Our school children are sep-

arated into eleven well-defined grades, classified much as are the children in the lower grades of the common schools. There is a regular progression from the lower to the higher grades, and the pupils are promoted as soon as they are qualified. No pupil is in the schoolroom more than one-half of each day. The rest of the day is devoted to manual or industrial training, physical drill and outdoor recreation, thus securing healthy change and variety.

In deciding upon the school exercises, we bear in mind the natural limitations of our pupils. Lessing well says: "Education can only develop and form, not create. It cannot undertake to form a being into anything other than it was destined to be by the endowments it originally received at the hand of nature." We do not expect to be able to entirely overcome the mental defect of any one of our pupils. It is a question of how much development is possible in each case.

As a class, the feeble-minded have dull perceptions, feeble power of attention, weak will-power, uncertain memory and defective judgment. It is useless to attempt to arouse these dormant faculties by forcing upon them the abstract truths of ready-made knowledge. Our teaching must be direct, simple and practical. The child must be made to do, to see, to touch, to observe, to remember and to think. We utilize to the fullest extent the varied and attractive occupations and busy work which are so important a part of the modern graphic methods of instruction for normal children. Object teaching, in the broadest sense, is a prominent feature. The school now has a good collection of objects, models, charts and other apparatus for the practical illustration and application of the subjects taught in the schools. We have for the use of the teachers a school library containing over one thousand recent and standard works on kindergarten and primary work, object teaching, physical and manual training, and other subjects directly connected with our school work.

Nearly all of our pupils receive daily systematic physical training. As a rule, they come to us with poorly developed bodies. Their muscular activity is especially deficient, as shown by their awkward and uncertain movements. Mental awakening generally follows as a direct result of increased physical development. The military drill is of much benefit to the boys. In nearly all of our classes in physical training we have adopted the Ling or Swedish plan of educational gymnastics. This system, as modified for our use, means the prompt execution of precise and carefully planned movements of the various groups of muscles at the command of the instructor. The pupil must be closely attentive, he must quickly hear and understand, and he must promptly execute the command. It is a mental as well as physical drill.

The mental drill and discipline given these children in our formal school classes would really be of little value if the knowledge gained could not be practically applied in the way of making them happier, more self-reliant, more useful, and more like normal boys and girls in every respect.

It has long been recognized that in institution life, notwithstanding the many special advantages not to be obtained elsewhere, there is more or less loss of the opportunities for profiting by the teaching of experience, and the far-reaching deductions that even a feeble-minded child makes as a result of rubbing against the very frequent and sharp corners of the outside world.

In a well-regulated institution the child's whole life is carefully supervised; he is told when to get up in the morning, what garments to put on, when to go to meals, what articles of food he shall eat, how much he shall eat, and he is kept from danger of all kinds; his daily duties, conduct and even his pleasures are plainly indicated and prescribed; and finally he is told when to go to bed at night. This guardianship is absolutely necessary, not only for his immediate welfare, but that he may acquire proper habits of life. But we try to accomplish all this in such a way that the child's personality shall be developed and brought out, and not lost sight of and extinguished. We spare no effort to bring into each child's life and experience that knowledge of common events and familiarity with the manners and customs of ordinary life that are just as essential parts of the real education of normal children as the usual instruction received in the schoolroom.

The daily life of our institution is based upon and closely resembles the ordinary daily routine of any other village of thirteen hundred inhabitants. As far as possible we try to illustrate the various phases of life in any other community, with its cares, duties, privileges and responsibilities, its little joys and pleasures.

We try to impress upon each one the reasonable certainty that well-doing brings its reward, and that wrong-doing means an ultimate curtailing of some cherished pleasure or privilege. The love of approbation so universally shown by these children is a prime factor in our scheme of discipline and management. No corporal punishment is administered.

To keep our charges healthy, happy and out of mischief, occupation and recreation in proper proportion, must be provided for every hour in the day. A busy boy is generally a good boy. Every boy and girl in good bodily health has some regular daily work assigned them, according to their age, size and capacity, and this work is often changed, to make them familiar with different kinds of work. This duty may be very simple, and very likely could be much better performed by some one else, or it may be a half or full day's work in the garden, workshop, kitchen or elsewhere. Sunday, the one day of leisure, is the only day when it is at all difficult to keep our boys and girls happy and out of mischief.

Aside from the immediate disciplinary and educational value of work, the only possible way that a feeble-minded person can be fitted to lead a harmless, happy and contented existence after he has grown to adult life is by acquiring in youth the capacity for some form of useful work.

The boys take great interest in the farm and garden work. They have picked thousands of loads of stone from our fields and carted them off for use in roadmaking. They do all the harrowing and cultivating. They do all of the weeding and nearly all of the hoeing in our large garden. The truck team, collecting and delivering supplies between the different buildings, takes the entire time of two boys. Other boys assist the baker, carpenter and engineer. One class of boys devote all their time to painting, doing as good work as we could hire done. Two boys, proudly uniformed with red caps, serve as errand boys. The shoes of our thirteen hundred inmates are kept in repair entirely by the work of the boys. They do all of the printing of stationery, blanks, circulars, etc., for the school. The boys also do much of the housework in the buildings where they live. The girls are kept just as busy. In the laundry they learn to wash, iron and fold clothes. They do much of the sewing, mending and darning for our large household. Much of the children's clothing is made in our sewing-rooms by our girls. Relays of willing helpers keep our eleven sewing machines busy from morning until night. Every girl at all bright is expected to keep her own clothing in repair. They are taught to wash dishes, make beds, wash windows, polish floors, sweep, dust, etc. The older girls and women are of great assistance in the care of the feeble and helpless children. The instinctive feminine love for children is relatively quite as marked with them as with normal women. A newly admitted child is at once eagerly adopted by some one. The affection and solicitude shown for the comfort and welfare of "my baby" are often quite touching. This responsibility helps wonderfully in keeping this uneasy class happy and contented. Without this cheerfully given service we could not well care for the large number of helpless and feeble children in our asylum department without a largely increased number of paid attendants.

Each ward or family of about twenty children has its separate and distinct playground in the shady grove. All of these playgrounds are equipped with swings, hammocks, tilt boards, sand-gardens, croquet sets, etc. Each group of children spends part of each day in their playground, accompanied by the attendant, who directs and assists in their games and sports.

In the living-room of every family is a liberal supply of bright-colored building blocks, picture books and playthings of every sort. Every little girl has a doll of her own. These toys are always accessible, and the children are encouraged to use them as much as possible. The playthings are provided not as luxuries, but as necessities, if we wish to approximate normal mental development. A recent writer well says: "To acquire alert minds, children must be alert; and the young child can be alert only as his play instinct is aroused. Shut out the play instinct, and you stunt his growth; neglect to draw it out, and you lessen his possibilities for strength."

Every boy or girl of suitable physical health is supposed to own a sled. Our fine hills afford splendid facilities for coasting, which are fully utilized.

At least once a week during the school year some evening entertainment is provided for the children, consisting of concerts, readings, school exhibitions, tableaux, minstrel shows, a masquerade ball, dramatic performances and stereopticon exhibitions. These entertainments are gotten up by the officers and employees, usually assisted by some of the children. The school now owns a fine stereopticon apparatus, and nearly a thousand carefully selected lantern slides. These magic-lantern pictures vividly illustrate the principal physical features of the world and the many phases of human life and its varied interests. The pictures are greatly enjoyed by the children, and give them much real knowledge of the great world outside.

The most effectual means of discipline or correction for misdemeanor or waywardness is to send a child early to bed while his fellows are enjoying one of the entertainments.

Among our resources in the way of recreation is the "Zoo," our collection of domestic animals and other pets, including goats, sheep, a calf, a pig, rabbits, guinea pigs, white mice, squirrels, hens, chickens, ducks, geese, turkeys, pigeons, turtles, frogs and even snakes. This collection is a never-failing source of pleasure and instruction for the children. It really forms a very important part of our school object collection, as the different animals are actually taken into the schoolrooms as living texts for encouraging attention and observation, the exercise of the special senses, and developing the power of speech.

The regular holidays are observed in the most approved and thorough manner. The 4th of July is celebrated with all the noise and pomp of the most ambitious village. In the morning there is a parade of antiques and horrors, followed by a formal and dignified procession made up of four military companies, the baseball nines and the firemen, headed by the drum corps, all in uniform, who make a tour of the different buildings, where the children enthusiastically and vociferously greet them with the noise of tin horns, torpedoes and firecrackers. Then all the children, officers and teachers fall in the rear of the procession and march to the grove, where a picnic dinner is served, consisting of sandwiches, cake, ice cream, fruit and lemonade, — all in great abundance. In the afternoon the entire family adjourns to the campus to witness a long programme of athletic sports. This includes a baseball match, tug-of-war contest, running, hurdle and other races, etc.; in fact, the conventional New England 4th of July celebration. The eager contestants in the games and races are the boys and even some of the girls, who have been in training for a long time beforehand. The winners are rewarded with glittering badges, which are carefully preserved and proudly worn for a long time afterwards. In the evening a good display of fireworks ends the festivities of the day.

At Christmas the hall is gaily decorated with evergreens and bunting, and every child receives several presents from the Christmas tree.

Each Sunday services are held in the assembly hall and in the west building, consisting of singing, Bible stories and simple illustrations and practical applications of the fundamental principles of morality and religion. Nearly every child attends these services, and, in addition to the moral instruction, receives valuable lessons in decorum and behavior.

LAWS RELATING TO THE MASSACHUSETTS SCHOOL FOR THE FEEBLE-MINDED.

ACTS OF 1850, CHAPTER 150.

AN ACT TO INCORPORATE THE MASSACHUSETTS SCHOOL FOR IDIOTIC AND FEEBLE-MINDED YOUTH.

Be it enacted, etc., as follows:

SECTION 1. S. G. Howe, Samuel May, Stephen Fairbanks, their associates and successors, are hereby made a corporation, by the name of the Massachusetts School for Idiotic and Feeble-minded Youth, for the purpose of training and teaching such persons, with all the powers and privileges and subject to all the duties, restrictions and liabilities set forth in the thirty-eighth and forty-fourth chapters of the Revised Statutes.

SECTION 2. Said corporation may hold, for the purpose aforesaid, real estate not exceeding in value one hundred thousand dollars and personal estate the income of which shall not exceed ten thousand dollars. [*Approved April 4, 1850.*]

REVISED LAWS, CHAPTER 87, SECTIONS 113-123.

SECTION 113. There shall be six trustees, on the part of the commonwealth, of the Massachusetts school for the feeble-minded, two of whom shall be annually appointed by the governor, with the advice and consent of the council, for a term of three years.

SECTION 114. The annual appropriation for the support of said school shall be made upon condition that the board of trustees shall be composed of twelve persons, six of whom shall be appointed by the governor, with the advice and consent of the council; that the governor, lieutenant governor, secretary of the commonwealth, president of the senate, speaker of the house and the two chaplains of the general court shall constitute a board of visitors to visit and inspect the institution as often as they see fit, to examine the by-laws and regulations enacted by the corporation, and generally to see that the object of the institution is carried into effect; and that the members of the general court for the time being shall be, *ex officio*, visitors of the institution, and have the privilege, during the sessions, of inspecting it.

SECTION 115. The Massachusetts school for the feeble-minded shall maintain a school department for the instruction and education of feeble-minded persons who are within the school age or who in the judgment of the trustees thereof are capable of being benefited by school instruction, and a custodial department for the care and custody of feeble-minded persons beyond the school age or not capable of being benefited by school instruction.

SECTION 116. Persons received by said corporation shall from time to time be classified in said departments as the trustees shall see fit, and the trustees may receive and discharge pupils at their discretion and may at any time discharge any pupil or other inmate and cause him to be removed to his home or to the place of his settlement or to the custody of the state board of insanity. They may also allow any inmate to be absent on a visit for not more than three months, and the liability of any person or place to said corporation for the support of such inmate shall not be suspended by reason of such absence, unless, during such period, such inmate becomes a charge to the commonwealth elsewhere.

SECTION 117. Said corporation shall gratuitously receive, maintain and educate in the school department such indigent feeble-minded persons from this commonwealth as shall be designated by the governor upon the recommendation of the secretary of the board of education. Special pupils may be received from any other state or province at a charge of not less than three hundred dollars a year. The trustees may also at their discretion receive, maintain and educate in the school department other feeble-minded persons, gratuitously or upon such terms as they may determine.

SECTION 118. If, upon application in writing, a judge of probate finds that a person is a proper subject for the Massachusetts school for the feeble-minded, he may commit him thereto by an order of commitment directed to the trustees thereof, accompanied by the certificate of a physician, who is a graduate of a legally organized medical college and who has practised three years in this commonwealth, that such person is a proper subject for said institution. The fee of the judge for hearing and determining the application shall be three dollars, and if he is required to go from his office or place of business to attend such hearing, an additional fee of one dollar and all necessary expenses of travel, which shall be paid upon the certificate of the judge by the county in which such application was heard.

SECTION 119. A person who intends to apply for the commitment of a feeble-minded person under the provisions of the preceding section shall first give notice in writing to the overseers of the poor of the city or town in which such feeble-minded person resides, of such intention; but if such feeble-minded person resides in Boston, such notice shall be given to the institutions registrar or to the chairman of the insane hospital trustees instead of the overseers of the poor. Satisfactory evi-

dence that such notice has been given shall be produced to the judge and shall accompany the order of commitment.

SECTION 120. The charges for the support of each inmate in the custodial department of said school shall be three dollars and twenty-five cents a week, and shall be paid quarterly. Such charges for those not having known settlements in the commonwealth shall, after approval by the state board of insanity, be paid by the commonwealth, and may afterward be recovered by the treasurer and receiver general of such inmates, if of sufficient ability, or of any person or kindred bound by law to maintain them, or of the place of their settlement, if subsequently ascertained; for those having known settlements in this commonwealth, either by the persons bound to pay or by the place in which such inmates had their settlement, unless security to the satisfaction of the trustees is given for such support. If any person or place refuses or neglects to pay such charges, or such amounts as may be charged and due to the removal of an inmate whom the trustees are authorized by law to remove, the treasurer may recover the same to the use of the school as provided in section seventy-nine.

SECTION 121. A city or town which pays the charges and expenses for the support or removal of a feeble-minded person admitted to said school shall have like rights and remedies to recover the amount thereof with interest and costs from the place of his settlement, or from such person if of sufficient ability, or from any person bound by law to maintain him, as if such charges and expenses had been incurred in the ordinary support of such feeble-minded person.

SECTION 122. The trustees of said school shall annually prepare and send to the state board of insanity a written or printed report of its proceedings, income and expenditures, properly classified, for the year ending on the thirtieth day of September, stating the amount appropriated by the commonwealth, the amount expended under said appropriation, the whole number and the average number of inmates, the number and salaries of officers and employees, and such other information as the board may require, and shall also once in three months make a report to said board of the number of inmates received and discharged, respectively, during the preceding three months, the whole number then in the institution and the number of beneficiaries supported by the commonwealth, and such other information as the board may require.

SECTION 123. The state board of insanity may from time to time transfer from the state hospital, state farm, or any of the state insane hospitals, to the Massachusetts school for the feeble-minded any inmate whose condition would be benefited by such transfer, upon the certificate of a physician that he is a proper subject for said institution.

RESOLVES OF 1900, CHAPTER 36.

Resolved, That there be allowed and paid out of the treasury of the commonwealth a sum not exceeding fifty thousand dollars, to be expended under the direction of the trustees of the Massachusetts School for the Feeble-minded in erecting new buildings for the said school upon land of the commonwealth at Templeton, and in providing a water supply and sewerage works for the same. [*Approved March 28, 1900.*]

ACTS OF 1902, CHAPTER 434, SECTION 2.

From said loan expenditures may be made as follows: —

.

By the trustees of the Massachusetts School for the Feeble-minded, a sum not exceeding one hundred and thirty thousand dollars, for the following purposes: For two dormitories of sufficient capacity to accommodate one hundred and eighty inmates, and for furnishing the same, for additions to the present electric lighting and heating plants, and for an addition to the administration building, so-called, a sum not exceeding ninety-five thousand dollars; and for the purchase of additional land for the use of said institution, such purchase to be subject to the approval of the governor and council, a sum not exceeding thirty-five thousand dollars.

• ACTS OF 1905, CHAPTER 175. •

SECTION 1. Annual appropriations, in addition to unexpended receipts, shall be made for the maintenance of each of the state hospitals and insane asylums, the Massachusetts hospital for dipsomaniacs and inebriates, the Massachusetts hospital for epileptics, the Massachusetts state sanatorium, and the Massachusetts School for the Feeble-minded. All accounts for the maintenance of the above institutions shall be approved by the trustees and filed with the auditor of accounts at the end of each month, and shall be paid out of the treasury of the commonwealth. Full copies of the pay rolls and bills shall be kept at each institution, but the originals shall be deposited with the auditor of accounts as vouchers.

SECTION 2. All money received by said hospitals, asylums and other institutions shall be paid into the treasury of the commonwealth as often as once in each month. The receipts from each institution shall be placed to its credit, and shall be used for its maintenance during the following year.

SECTION 3. The provisions of the two preceding sections shall not affect the powers of the trustees of said institution under the provisions

of section twenty-three of chapter eighty-seven of the Revised Laws, section three of chapter eighty-eight of the Revised Laws, chapter one hundred and fifty of the acts of the year eighteen hundred and fifty, and acts in amendment thereof, nor their right to regulate or control the expenditure of any funds held by them under the provisions of said acts.

SECTION 4. Sections one hundred and twenty-seven, one hundred and twenty-eight and one hundred and twenty-nine of chapter eighty-seven of the Revised Laws are hereby repealed.

SECTION 5. This act shall take effect on the first day of January in the year nineteen hundred and six. [*Approved March 14, 1905.*]

ACTS OF 1905, CHAPTER 444, SECTION 2.

SECTION 2. From the aforesaid loan expenditures may be made as follows:—

.

By the trustees of the Massachusetts School for the Feeble-minded, a sum not exceeding ninety-one thousand dollars, for the following purposes: For constructing one-story buildings, of wood, for fifty patients, at the Templeton colony, a sum not exceeding fourteen thousand dollars; and for the construction at Waltham of two dormitories of sufficient capacity to accommodate two hundred inmates, a sum not exceeding seventy-seven thousand dollars.

RESOLVES OF 1905, CHAPTER 85.

Resolved, That there be allowed and paid out of the treasury of the commonwealth a sum not exceeding twenty-two thousand dollars, to be expended at the Massachusetts School for the Feeble-minded, under the direction of the trustees thereof, for the following purposes: For the construction of an additional story for the dynamo building, with fire-proof drying room, and for fireproofing the west building and for altering and repairing the administration building, a sum not exceeding eight thousand dollars; for furnishing the wooden buildings at Templeton for fifty patients, a sum not exceeding two thousand dollars; for furnishing the dormitories at Waltham, a sum not exceeding eight thousand dollars; for the construction of a new barn, a sum not exceeding three thousand dollars; for the construction of a new shed, a sum not exceeding three hundred dollars; for the construction of an ice house, a sum not exceeding four hundred dollars; and for the construction of a silo, a sum not exceeding three hundred dollars. [*Approved May 18, 1905.*]

ACTS OF 1906, CHAPTER 500, SECTION 2.

SECTION 2. From the aforesaid loan expenditures may be made as follows: —

.

By the trustees of the Massachusetts School for the Feeble-minded, a sum not exceeding sixty-five thousand dollars, for the following purposes: For constructing and furnishing two brick buildings for nurses, a sum not exceeding thirty thousand dollars; for constructing and furnishing two buildings for patients, a sum not exceeding thirty thousand dollars; and for constructing and furnishing two wooden houses for male employees, a sum not exceeding five thousand dollars.

RESOLVES OF 1906, CHAPTER 84.

Resolved, That there be allowed and paid out of the treasury of the commonwealth the sum of ten thousand dollars, to be expended at the Massachusetts School for the Feeble-minded under the direction of the trustees thereof, for the following purposes: For building an addition to the farmhouse dining room, a sum not exceeding two thousand dollars; for the purchase of laundry machinery, a sum not exceeding eighteen hundred dollars and for constructing barns, hay sheds and silos at Templeton colony, a sum not exceeding sixty-two hundred dollars. [*Approved June 5, 1906.*]

ACTS OF 1907, CHAPTER 489.

SECTION 1. Chapter three hundred and nine of the acts of the year nineteen hundred and six is hereby amended by striking out section one and inserting in place thereof the following: — *Section 1.* If an inmate of the Massachusetts School for the Feeble-minded, whether by commitment or otherwise, shall have reached the limit of school age, or, in the judgment of the trustees, is incapable of being further benefited by school instruction; or, if the question of the commitment to or continuance in said school of any inmate, including inmates who may have been transferred from one department of said school to another under the provisions of section one hundred and sixteen of chapter eighty-seven of the Revised Laws, is, in the opinion of the trustees and of the state board of insanity, a proper subject for judicial inquiry, the probate court for the county of Middlesex, upon the petition in writing of said trustees, or of said board or of any member of either body, and after such notice as the court may order, may, in its discretion, order such inmate to be brought before the court, and shall determine whether or not he is a feeble-minded person, and may commit him to said school

or to either department thereof, or may order him to be discharged therefrom.

SECTION 2. This act shall not be construed to impair the power given to said trustees by section one hundred and sixteen of chapter eighty-seven of the Revised Laws to discharge any inmate of said school or of any department thereof.

SECTION 3. This act shall take effect upon its passage. [*Approved June 11, 1907.*]

ACTS OF 1908, CHAPTER 50.

SECTION 1. The sums hereinafter mentioned are appropriated, to be paid for the maintenance of the Massachusetts School for the Feeble-minded during the fiscal year ending on the thirtieth day of November, nineteen hundred and eight, to wit:—

From the receipts of said school now in the treasury of the commonwealth, the sum of one hundred twenty-nine thousand six hundred ninety-six dollars and ninety-three cents, and from the treasury of the commonwealth from the ordinary revenue, a sum in addition not exceeding one hundred eighteen thousand one hundred fourteen dollars and ninety-six cents.

For the city of Waltham for the annual assessment due from the commonwealth toward maintaining and operating a system of sewage disposal at the Massachusetts School for the Feeble-minded, the sum of eight hundred twenty dollars and eighty-nine cents, as provided in section three of chapter eighty-nine of the acts of the year eighteen hundred and ninety-three.

SECTION 2. This act shall take effect upon its passage. [*Approved February 6, 1908.*]

ACTS OF 1908, CHAPTER 629.

After the first day of December in the year nineteen hundred and eight, the commonwealth shall be liable for the board, care and treatment of all persons who are feeble-minded, or epileptic, who may be inmates of the Massachusetts School for the Feeble-minded, of the Wrentham state school, of the Massachusetts hospital for epileptics, of the Hospital Cottages for Children, or of any other state institution for the care of such persons, or who may be admitted thereto under the provisions of law, and who would be supported under existing laws at the expense of any city or town within the commonwealth. [*Approved June 12, 1908.*]

TERMS OF ADMISSION.

Persons applying for admission of children must fill out and return certain blanks, copies of which will be forwarded to any address on application to the superintendent.

Candidates for admission must be over six years of age. The best age for training and instruction is between eight and twelve.

This institution is not intended for epileptic or insane children, or for those who are incurably hydrocephalic or paralytic. None such will be retained, to the exclusion of more improvable subjects.

Any suitable person may be admitted, on such terms as the trustees may determine, according to the responsibilities and difficulties in each case. Payments are to be made quarterly, in advance, or sufficient surety therefor given. Private pupils will be required to observe strictly all the rules and regulations of the institution.

The children of indigent parents in Massachusetts may secure gratuitous admission in accordance with the law. Indigent pupils from Maine, Vermont and Rhode Island may secure gratuitous admission by application to the governors of their respective States.

Children must come to school well provided with plain, strong clothing for summer and winter. The clothing must be renewed by the parents as needed. Children who tear their clothing must be provided with garments made expressly for them, and of such form and texture as may not be easily torn. Only common mending will be done at the expense of the institution. All the articles of clothing must be marked with the **FULL NAME** of the owner. Sufficient surety will be required for the clothing of the children, and their removal whenever they may be discharged.

Boys should be furnished with two full suits of strong outer clothing, two undershirts, three nightshirts, two pairs of drawers, four pairs of socks, six handkerchiefs, two colored cotton shirts, two collars, two hats or caps, two pairs of shoes and one pair of mittens.

Girls should have three dresses (two wash dresses), two colored cotton skirts, two colored flannel skirts, four colored aprons, two white aprons, two undervests, three pairs of drawers, two underwaists, three night-dresses, four pairs of stockings, six handkerchiefs, two collars, two pairs of strong shoes, one pair of rubbers, one hat, one hood, one shawl or cloak and one pair of mittens.

The post-office address of the school is **WAVERLEY**.

For further particulars, apply in person or by letter to the superintendent.

WALTER E. FERNALD, M.D.

RULES AND REGULATIONS.

TRUSTEES. — A meeting of the trustees shall be held quarterly.

QUORUM. — The presence of three members shall constitute a quorum.

VISITING COMMITTEE. — The trustees in turn visit the institution, one each week, and meet quarterly at the school.

The trustee making the weekly visit shall examine the state of the institution; the condition, etc., of the pupils, and of all the rooms in the establishment; and receive and examine any report of the superintendent and make a record of his visit and impressions.

He may report on the state and condition of the institution at any quarterly meeting of the trustees.

AUDITOR. — An auditor shall be appointed annually. He shall examine all the accounts of the institution and treasurer. He shall aid the treasurer in the investment of any funds belonging to the institution; and no money shall be paid out by the treasurer without his order.

SUPERINTENDENT. — It shall be the duty of the superintendent to reside at, and give his whole time to the service of the institution.

In addition to his duties under the by-laws of the corporation he shall select and employ all subordinate officers, teachers, assistants and servants of the institution, subject to the approval of the executive committee and shall consult the executive committee before making any material changes in the administration of the institution.

He shall have the general superintendence of the whole institution, and have charge of all the pupils, and direct and control all the persons therein, subject to the regulation of the trustees.

He shall regulate the diet, regimen, exercises and employments, and the whole course of the education and training of the pupils.

He shall, from time to time, give to all persons employed in the institution such instructions as he shall deem best to carry into operation all the rules and regulations of the same; and he shall cause such rules and regulations to be strictly and faithfully executed.

He shall make a record of the name, age and condition, parentage and probable cause of deficiency of each pupil, and of all the circumstances that may illustrate his or her condition or character; and also keep a record, from time to time, of the progress of each one.

He shall purchase fuel, provisions, stores and furniture, and shall be responsible for the safe-keeping and expenditure thereof: *provided, however,* that if the trustees think it best to appoint a steward, he shall perform these duties with the concurrence of the superintendent.

He shall collect and receive all the moneys due from the pupils, and deposit the same with the treasurer.

He shall keep a separate account with each one of the pupils, or with the parents or guardians of such of the pupils as are not beneficiaries of Massachusetts, charging them with all expenses of board, instruction, etc., and with all the money expended for clothing and other necessities, or proper indulgences.

He shall make quarterly reports to the trustees of the condition of the institution, and make such suggestions as he may think the interest of the institution requires.

He shall prepare for the trustees and the corporation an annual report, in which he will show the history, progress and condition of the institution, and the success of the attempts to educate and improve the feeble-minded youth.

The teachers, assistants and pupils will be under the immediate direction of the superintendent, and no orders shall be given to them except through him.

No officer, assistant or pupil can absent himself from the institution without the permission of the superintendent.

The hours for work, for exercise, for study and for recreation being established by the superintendent, each teacher, assistant and pupil will be expected to conform strictly to them.

MATRON. — The matron, under the direction of the superintendent, shall have charge of the house.

She shall enforce the rules and regulations of the trustees, and see that order and good conduct prevail in every part of the establishment.

If improper conduct is observed in any subordinate or inmate, she shall report the same to the superintendent.

VISITORS. — Persons may visit the institution under such regulations as the trustees and superintendent shall establish.

TOBACCO. — The use of tobacco, either in smoking or otherwise, is prohibited in the institution.

BY-LAWS OF THE CORPORATION AND TRUSTEES OF THE MASSACHUSETTS SCHOOL FOR THE FEEBLE-MINDED.

ARTICLE I. — TITLE.

The corporation shall be composed of the persons named in "An Act to incorporate the Massachusetts School for the Feeble-minded," and such persons as may be elected members by ballot at any legal meeting.

ARTICLE II. — MEETINGS.

There shall be an annual meeting of the corporation on the second Thursday of December in every year, at which the following officers shall be chosen by ballot, namely: a president, a vice-president, six trustees, a treasurer, and a secretary, to serve until the next annual meeting, or until others are chosen and qualified in their stead: *provided, however,* that if, from any cause, the officers should not be elected at the annual meeting, they may be elected, or any vacancy filled, at any other meeting, regularly notified for the purpose.

ARTICLE III.

Notice of the annual meeting shall be given by the secretary, by sending a written or printed notice to each member of the corporation.

ARTICLE IV.

The president, or, in his absence, the vice-president, shall preside at all meetings of the corporation; and, in the absence of both, a president shall be chosen for the meeting.

ARTICLE V.

The secretary shall call a special meeting of the corporation on the requisition of the Board of Trustees, or of any ten members of the corporation, notice being given as for the annual meeting.

ARTICLE VI. — TRUSTEES.

The Board shall be composed of six persons chosen according to the second article, and of six persons appointed by the Governor and Council of the State of Massachusetts, as provided in the resolve passed by the Legislature and approved June 18, 1886.

It shall be the duty of the Board of Trustees to meet once a quarter. Three shall form a quorum for ordinary business, but a majority of the whole shall be required for a quorum, at any meeting, to act upon the transfer of real estate or other property. They shall have power to take any measures which they may deem expedient for encouraging subscriptions, donations and bequests to the corporation; to take charge of all the interests and concerns of the school; to enter into and bind the corporation by such compacts and engagements as they may deem advantageous; to make such rules and regulations for their own government and that of the school, and not inconsistent with these by-laws, as may to them appear reasonable and proper, subject, however, to be altered or annulled by the corporation.

They shall annually appoint a superintendent, who shall nominate for their acceptance all necessary officers, assistants and servants, with such compensation as they may deem proper. They shall cause to be kept a fair record of all their doings, which shall be laid before the corporation at every meeting thereof; and at every annual meeting they shall make a report in writing on the accounts of the treasurer of the corporation and of the treasurer of the institution, and of the general state of the institution, comprising a statement of the number of persons received into and discharged from the same, the condition of the pupils, and an inventory of all the real and personal estate of the corporation.

ARTICLE VII. — SECRETARY.

It shall be the duty of the secretary to notify and attend all meetings of the corporation and the trustees, and to keep a fair record of their doings; and to furnish the treasurer of the corporation and the superintendent of the corporation with a copy of all votes of the corporation or of the trustees respecting the payment of money to be made by them.

ARTICLE VIII. — TREASURER.

It shall be the duty of the treasurer of the corporation to receive and have the custody of all moneys and securities belonging to the corporation, which he shall keep and manage under the direction of the trustees. He shall pay no moneys but by their order, or the order of the committees duly authorized. His books shall be open to the inspection of the trustees. He shall make up his accounts to the thirtieth day of November each year, together with an inventory of all the real and personal estate and of the debts due to and from the corporation, and present the same to the corporation at their annual meeting. He shall give such bonds for the faithful discharge of his duties as the trustees shall, from time to time, require.

ARTICLE IX. — SUPERINTENDENT.

The superintendent, appointed as above, shall act as treasurer of the institution, receiving and disbursing, under the direction of the trustees, all moneys appropriated by the Commonwealth for its maintenance and development, and all moneys accruing from its operation; and shall give such bond for the faithful discharge of his duties as the trustees shall from time to time require, the expense of such bond to be paid from the maintenance funds of the institution.

ARTICLE X. — ALTERATIONS.

These by-laws may be altered at any annual meeting of the corporation, by vote of two-thirds of the members present.

NOTICE.

MASSACHUSETTS SCHOOL FOR THE FEEBLE-MINDED.

The Massachusetts School for the Feeble-minded is located at Waltham, near the Clematis Brook station of the Fitchburg Division of the Boston & Maine Railroad, and about one mile from the Waverley stations of the Fitchburg and Massachusetts Central divisions. The railroad fare from Boston to Clematis Brook is fifteen cents each way. The distance from Boston is eight miles.

Electric cars leave the Park Street subway, Boston, for Waverley, every fifteen minutes; five-cent fare. Electric cars leave Waverley station for Waltham every hour, passing the entrance to the school grounds. A public carriage may be found at the Waverley station; fare, twenty-five cents. Clematis Brook is the nearest railroad station, but there is no public carriage at this station.

The post-office address is Waverley, Mass. Telegrams should be sent to Waverley. Express packages should be sent to Waverley. Packages for the children should be addressed to the school at Waverley. Always put the child's name on the outside of the package.

Friends of the children may visit them any Wednesday, Thursday or Saturday afternoon. No visiting on holidays.

TEMPLETON COLONY FOR THE FEEBLE-MINDED.

The farm colony of the Massachusetts School for the Feeble-minded is located in the town of Templeton. The colony is about three miles from the Baldwinville station of the Fitchburg division of the Boston & Maine Railroad; it is about two miles from the Templeton station of the Ware River division of the Boston & Albany Railroad.

The cars of the Athol & Gardner electric line go within one-half mile of the colony. The distance from Boston to Baldwinville is seventy-one miles, and the railroad fare is \$1.40 each way. A public carriage may be found at the Baldwinville station.

The post-office address is Baldwinville. The telegraph address is Baldwinville. Express packages should be sent to Baldwinville. Packages for the children should be addressed to the school at Baldwinville, and the child's name should always be put on the outside of the package.

THIRD ANNUAL REPORT
OF THE
COMMISSION
ON
INDUSTRIAL EDUCATION.

SUBMITTED IN ACCORDANCE WITH THE
ACTS OF 1906, CHAPTER 505.

JANUARY, 1909.

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APPROVED BY
THE STATE BOARD OF PUBLICATION.

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CHARLES H. WINSLOW.

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EMILY G. BALCH.

CHARLES H. MORSE, *Secretary and Executive Officer.*

CONTENTS.

	PAGE
Legislation on Industrial Education,	9-12
Act of 1906,	9
Act of 1908,	11
Explanation of the Act of 1908,	12
Personnel of the Commission,	13
Publications of the Commission,	13-16
Publications previous to 1908,	13
Publications issued in 1908,	14
Policy of the Commission,	16
Work of the Commission in 1908,	19
Aid in the Planning and Establishment of Industrial Schools,	19
Rural Industrial Schools,	21
Supervision of Schools,	22
Industrial Education for Girls,	22-27
Education for Trades,	23
Education for Domestic Life,	24
Independent Agricultural Schools,	26
Compilation of a Classified List of Schools now preparing for Women's Industries,	26
Supervision of Instruction for Women and Girls,	27
Accounts,	28
Schools established,	28-73
Day Industrial Schools,	28-41
Montague,	28
Northampton,	35
Evening Industrial Schools,	41-70
Beverly,	42
Boston,	46
Brockton,	47
Cambridge,	49
Chicopee,	52
Lawrence,	54
Natick,	61
New Bedford,	62

	PAGE
Work of the Commission in 1908 — <i>Continued.</i>	
Pittsfield,	66
Taunton,	67
Waltham,	68
Tabular Statement of the Industrial Courses given in the Schools under the Commission,	70
Progress towards the Establishment of Schools,	74-80
Day Schools,	74-79
Foxborough,	74
Lynn,	74
New Bedford,	75
Newton,	75
Worcester,	76
Evening Schools,	79-80
Walpole,	79
Investigations,	80-91
General Investigations in Forty-five Cities and Towns, concern- ing Pupils Fourteen Years of Age and upwards, in the Sixth, Seventh, Eighth and Ninth Grades of Grammar Schools, in order to determine the Number of These Pupils likely to attend a Local Industrial School,	80
Special Investigations among the Parents of Pupils in the Sixth, Seventh, Eighth and Ninth Grades of Grammar Schools in Lawrence, Lynn, Springfield and Worcester to ascertain the Attitude of the Parents towards Industrial Education,	83
National Movement for Industrial Education,	92
Meeting of the National Society for the Promotion of Industrial Education, at Atlanta, Ga.,	92
Massachusetts State Branch of the National Society for the Pro- motion of Industrial Education,	92
Legislation on Industrial Education in Other States,	93-98
Connecticut,	93
Georgia,	94
Maryland,	94
Michigan,	95
Mississippi,	95
New Jersey,	96
New York,	96
Wisconsin,	98
Statement relative to the reimbursement of Moneys expended for In- dustrial Education,	99
Recommendations for Industrial School Legislation,	99

CONTENTS.

7

APPENDICES.	PAGE
<i>Appendix A.</i> — Report of the Worcester Commission on Industrial Education on a Proposed Industrial School for Worcester (School for Machinists),	103
<i>Appendix B.</i> — Report of the Lynn Commission on Industrial Education on a Proposed Industrial School for Lynn (School for Shoe Workers),	119
<i>Appendix C.</i> — Tabular Presentation of General Investigations in Forty-five Cities and Towns concerning the Educational Plans of Pupils Fourteen Years of Age and upwards, in the Sixth, Seventh, Eighth and Ninth Grades of the Grammar Schools, in order to determine the Number of These Pupils likely to attend a Local Industrial School,	132
<i>Appendix D.</i> — Tabular Presentation of the Special Investigations among Parents of Pupils of Industrial School Age in the Sixth, Seventh, Eighth and Ninth Grades of Grammar Schools in Lawrence, Lynn, Springfield and Worcester, to ascertain the Attitude of the Parents toward Industrial Education,	145
<i>Appendix E.</i> — Lecture Notes prepared for Industrial Schools under the Commission,	160
<i>Appendix F.</i> — System of Accounting,	163
<i>Appendix G.</i> — State Laws on Industrial Education,	164
Index,	181

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The Commonwealth of Massachusetts.

REPORT OF THE COMMISSION ON INDUSTRIAL EDUCATION.

To the Honorable Senate and House of Representatives.

LEGISLATION ON INDUSTRIAL EDUCATION.

Act of 1906.

The Massachusetts Commission on Industrial Education was established by chapter 505 of the Acts of 1906, which reads as follows:—

AN ACT TO ESTABLISH THE COMMISSION ON INDUSTRIAL EDUCATION.

SECTION 1. The governor, by and with the consent of the council, shall appoint a commission of five persons, to be known as the Commission on Industrial Education, to serve for the term of three years, and to receive such compensation as the governor and council shall approve. The said commission on its organization shall appoint a secretary to be its executive officer, who shall not be a member of the commission, and who shall receive such salary as shall be approved by the governor and council, and the commission may employ supervisors, experts in industrial and technical education, and such clerical and other service as may be found necessary. The necessary expenses of the commission, including clerk hire, travelling expenses, stationery and all other incidental expenses, shall be paid out of the treasury of the commonwealth, as may be provided by law, but shall not exceed the sum of eight thousand dollars for the remainder of the present fiscal year.

SECTION 2. The commission on industrial education shall be charged with the duty of extending the investigation of methods of industrial training and of local needs, and it shall advise and aid in the intro-

duction of industrial education in the independent schools, as herein-after provided; and it shall provide for lectures on the importance of industrial education and kindred subjects, and visit and report upon all special schools in which such education is carried on. It may initiate and superintend the establishment and maintenance of industrial schools for boys and girls in various centres of the commonwealth, with the co-operation and consent of the municipality involved or the municipalities constituent of any district to be formed by the union of towns and cities as hereinafter provided. The commission shall have all necessary powers in the conduct and maintenance of industrial schools, and money appropriated by the state and municipality for their maintenance shall be expended under its direction.

SECTION 3. All cities and towns may provide independent industrial schools for instruction in the principles of agriculture and the domestic and mechanic arts, but attendance upon such schools of children under fourteen years of age shall not take the place of attendance upon public schools as required by law. In addition to these industrial schools, cities and towns may provide for evening courses for persons already employed in trades, and they may also provide, in the industrial schools and evening schools herein authorized, for the instruction in part-time classes of children between the ages of fourteen and eighteen years who may be employed during the remainder of the day, to the end that instruction in the principles and the practice of the arts may go on together: *provided*, that the independent schools authorized in this section shall be approved as to location, courses and methods of instruction by the commission on industrial education.

SECTION 4. Two or more cities or towns may unite as a district for the maintenance of the industrial schools provided for in the preceding section, but no such district shall be created without the approval of the commission on industrial education.

SECTION 5. Whenever any city or town or any district, as provided in the preceding section, shall appropriate money for the establishment and equipment and maintenance of independent schools for industrial training, the commonwealth, in order to aid in the maintenance of such schools, shall pay annually from the treasury to such cities, towns, or districts a sum proportionate to the amount raised by local taxation and expended for the support of schools for each thousand dollars of valuation, as follows: cities and towns expending more than five dollars for each thousand of valuation for the support of public schools to be reimbursed by the commonwealth to the amount of one half, those raising and expending between four and five dollars per thousand to the amount of one third, and those raising and expending less than four dollars per thousand to the amount of one fifth, of the cost of maintaining industrial schools: *provided*, that no payment to any city or town shall be made except by special appropriation by the legislature.

SECTION 6. The commission on industrial education shall make a report annually to the legislature relative to the condition and progress of industrial education during the year, stating what industrial schools have been established and the appropriations necessary for their maintenance, in accordance with the preceding section, and making such recommendations as the commission on industrial education may deem advisable; and especially shall the commission consider and report at an early day upon the advisability of establishing one or more technical schools or industrial colleges, providing for a three or four years' course for extended training in the working principles of the larger industries of the commonwealth.

SECTION 7. The trustees of the Massachusetts Agricultural College are hereby authorized to establish a normal department for the purpose of giving instruction in the elements of agriculture to persons desiring to teach such elements in the public schools, as provided in sections three and four: *provided*, that the cost of such department shall not exceed the sum of five thousand dollars in any one year, and that at least fifteen candidates present themselves for such instruction.

SECTION 8. Section ten of chapter forty-two of the Revised Laws, and all acts and parts of acts inconsistent with this act, are hereby repealed. [*Approved June 21, 1906.*]

Act of 1908.

Supplementary industrial education legislation was enacted by the passage of chapter 572 of the Acts of 1908, which reads as follows: —

AN ACT RELATIVE TO THE COMMISSION ON INDUSTRIAL EDUCATION.

SECTION 1. The term of the commission on industrial education established by chapter five hundred and five of the acts of the year nineteen hundred and six is hereby extended from three years to five years.

SECTION 2. The governor, by and with the consent of the council, shall appoint a woman as an additional member of the commission.

SECTION 3. The commission shall have all necessary powers in the conduct and maintenance of independent industrial schools, and money appropriated by the commonwealth or by municipalities for their maintenance shall be expended under its direction or with its approval. Any city or town may also establish independent industrial schools in charge of a board of trustees which shall have authority to provide and maintain such schools. Such schools, if approved by the commission on industrial education as to location, courses and methods of instruction, shall receive reimbursement as provided in section four of said chapter five hundred and five.

SECTION 4. Any resident of Massachusetts may, with the approval of the commission on industrial education, attend an independent in-

dustrial school, as provided for in this act, located in any city or town other than that in which he resides, provided there is no such school supported in whole or in part by the city or town in which he resides, upon payment by the city or town of his residence of such tuition fee as may be fixed by said commission; and the commonwealth shall repay to any city or town one half of all such payments. If any city or town neglects or refuses to pay for such tuition, it shall be liable therefor, in an action of contract, to the legally constituted authorities of the school which the pupil attended under the approval of said commission.

SECTION 5. All acts and parts of acts inconsistent herewith are hereby repealed. [*Approved June 2, 1908.*]

Explanation of the Act of 1908.

The main features of this legislation are:—

The extension of the term of the commission from three to five years; that is, until August, 1911.

The addition of a sixth member to the commission, who shall be a woman.

Further delegation to the commission of necessary powers in the conduct and maintenance of independent industrial schools.

Moneys appropriated for the maintenance of independent industrial schools, whether appropriated by the State or by municipalities, must be expended under the direction or with the approval of the commission.

Permission extended to any city or town to establish independent industrial schools in charge of a board of trustees, and the empowering of such a board with authority to provide and maintain such schools.

Such schools must be approved by the commission as to location, courses and methods of instruction, in order to receive State aid as provided for in chapter 505 of the Acts of 1906.

The commission may grant permission to any resident of Massachusetts to attend an authorized independent industrial school in any other city or town than that of his residence, provided that his own town does not maintain such a school in whole or in part.

The commission may fix a tuition fee which the home town is required to pay in case of pupils resident in outside towns, the State to repay to the town one-half the tuition fee so paid.

PERSONNEL OF THE COMMISSION.

In accordance with the provisions of chapter 505 of the Acts of 1906, on Aug. 31, 1906, His Excellency the Governor, Curtis Guild, Jr., appointed as members of the commission the following: Paul H. Hanus, chairman, A. Lincoln Filene, Charles H. Winslow, Carlton D. Richardson and Mary Morton Kehew. The commission appointed as temporary secretary Robert A. Woods, who served from Oct. 15, 1906, to Jan. 1, 1907, when Charles H. Morse of Cambridge was appointed secretary and executive officer.

In the fall of 1907 Mrs. Kehew resigned, owing to ill health, and the vacancy caused by her resignation was filled by the appointment of Mr. Milton P. Higgins of Worcester, on Jan. 8, 1908, by His Excellency Governor Guild.

In compliance with the legislation of 1908, His Excellency the Governor appointed Miss Emily G. Balch, associate professor of economics and sociology at Wellesley College, a member of the commission, on June 23, 1908.

PUBLICATIONS OF THE COMMISSION.

Publications Previous to 1908.

The first report of the commission was published in the spring of 1907, as Public Document, No. 76. This report gives the following information: an account of the organization of the present commission, and the selection of its secretary and executive officer; the conclusions reached by the preliminary Commission on Industrial and Technical Education; a statement of the initial point of view and the provisional policy of the present commission; the relations of the commission to local communities, and local initiative in the establishment of schools; a preliminary study of the subject of schools of agriculture; the consideration of further investigations; a preliminary study of the need of a higher industrial or technical college; the creation of a system for the distribution of circulars of information regarding industrial education, to be issued from time to time in the form of bulletins; a statement of the situation in several different cities of Massachu-

setts regarding the establishment of local industrial schools; excerpts from the introductory remarks of the chairman of the commission at conferences held by the commission; an article by the chairman of the commission on the industrial continuation schools of Munich, Bavaria, and a specimen of the bulletins issued by the commission, giving an account of the Munich School for Jewelers' Apprentices; a table of statistics regarding Massachusetts manufacturers; courses of study in several industrial schools already established in the United States.

Bulletins.

Bulletin No. 1: Industrial Continuation Schools for Jewelers' and Gold and Silver Workers' Apprentices. pp. 12. Boston, 1907.

Bulletin No. 2: Industrial Continuation Schools for Male Commercial Employees. pp. 12. Boston, 1907.

Bulletin No. 3: Industrial Continuation Schools for Machinists' Apprentices. pp. 12. Boston, 1907.

Bulletin No. 4: Industrial Continuation Schools for Mechanics' Apprentices. pp. 15. Boston, 1907.

Bulletin No. 5: Industrial Continuation Schools for Bookbinders' Apprentices. pp. 11. Boston, 1907.

Bulletin No. 6: Industrial Continuation Schools for Gardeners' Apprentices. pp. 6. Boston, 1907.

Bulletin No. 7: The Agricultural School. pp. 11. Boston, 1907.

Publications issued in 1908.

The second report of the commission, bearing the date January, 1908, was published as Public Document, No. 76 (pp. 682). It contains information on the following points: act establishing the commission; members of the commission; sessions of the commission; policies; investigations by the commission during 1907; administrative activities; development of interest in industrial education; textile schools of Massachusetts; exhibits of the commission outside the State; publications issued and received; inquiries extending the investigations of methods of industrial training and of local needs; inquiries by the secretary, by special agents, made in industries, regarding agricultural conditions, into general conditions prevailing among the unemployed youth; lectures and addresses; reports upon special industrial schools in America and Europe, abstracts and summaries of reports given in full in the ap-

pendices; inquiries sent to foreign industrial schools regarding organization, scope and management; agricultural schools, their aim and scope, general outline of the instruction, special courses; establishment of evening industrial schools at Beverly, Cambridge, New Bedford, Taunton, Waltham; report on the progress made toward the establishment of industrial schools in various Massachusetts centers; recommendations relating to legislation.

The appendices of that report are: —

Appendix A: Report upon special industrial schools in Europe: England; France; Switzerland; Germany; Belgium; Holland; Scotland; Ireland.

Appendix B: Report on the relations of European industrial schools to labor: England; France; Switzerland; Germany; Belgium; Ireland.

Appendix C: Report on agricultural education in France.

Appendix D: Agricultural education in England and Wales.

Appendix E: Report on a study of some special agricultural schools in the northwest.

Appendix F: Report on some special industrial schools of the eastern and southern parts of the United States.

Appendix G: A report on the attitude of the manufacturing interests in twenty Massachusetts cities towards industrial education.

Appendix H: A report by the commission on the advisability of establishing one or more technical schools or industrial colleges; objects to be accomplished; views of the heads of existing higher technical schools of Massachusetts; views of prominent manufacturers of Massachusetts; views of the employed; public hearing on the subject of a higher technical college; recommendations; some existing types of institutions for higher industrial training.

Appendix I: Expenditures of the commission for the year 1907. Illustrations showing buildings and class rooms used by the independent evening industrial schools maintained at Cambridge, New Bedford and Waltham.

Bulletins.

Bulletin No. 8: Industrial Education, under State Auspices, in Massachusetts. By Paul H. Hanus, Chairman of the Commission on Industrial Education. pp. 13. Boston, 1908.

Bulletin No. 9: Some Representative American Industrial and Manual Training Schools. pp. 87. Boston, 1908.

Bulletin No. 10: Report on the Relations of European Industrial Schools to Labor. pp. 22. Boston, 1908.

Bulletin No. 11: Report on the Advisability of Establishing One or More Technical Schools or Industrial Colleges. pp. 38. Boston, 1908.

House Document, No. 1320: A report by the Massachusetts Commission on Industrial Education on the Organization and Methods of the Several Textile Schools in the Commonwealth. pp. 106. Boston, 1908.

In addition to the publications issued formally by the commission, information has been given on request from the press, and, where necessary, statements have been issued for publication relative to the work of the commission.

Members of the commission and its secretary have presented various phases of industrial education, both through addresses and by means of publications independent of those issued by the commission.

POLICY OF THE COMMISSION.

In the light of the experience and investigations of the past two years, the commission feels that its provisional policy is sound. In brief, the policy may be stated as follows:—

The progressive development of all high-grade industries requires skilled workmen, possessing “industrial intelligence,”—that is, comprehensive insight into and intelligent interest in their several trades,—as well as skill. The present conditions of production are usually unfavorable to the training of such workmen in the shop or factory, and sometimes render such training impossible. All industries, whatever their grade, need more men than are now obtainable, who are capable of acting as foremen, superintendents or managers,—men possessing the comprehensive insight, interest and skill necessary for the organization and direction of a department or a shop. In general, such men, whether workers, foremen or superintendents, are now developed only by chance, and they are then self-made men, possessing the merits but also the shortcomings of their training.

Meanwhile, boys and girls are not only not directed toward the trades in our existing schools, but are actually often directed away from them by the bookish education of those schools and their purely academic traditions. The public schools are doing their work to-day better than they have ever done it. This statement is made on evidence, and is not merely an opinion.

But, both on account of the youth of the children up to the end of the grammar school period and because the purpose for which those schools exist is the general education, it is only natural that they should not have concerned themselves with the development of a vocational purpose, nor with the training which points toward the realization of that purpose. Up to the age of fourteen the whole of a pupil's time is required for the general education on which his vocational training should be based.

The high school pupils have entered on a longer career of general education, and in most cases look forward to a business career or to further study in some higher institution. The academic high schools, accordingly, even when they comprise so-called commercial courses or courses in manual training, are not vocational schools; they are schools for general education, and, like the elementary schools, are doing their work better than they have ever done it. They do not, however, in general, except the high schools of commerce, aim to supply the specific education required for a particular calling.

In every democratic society the schools provided by the public should meet the needs of all classes, — those who are not going to college, as well as those who are. The existing public high schools serve to give a general education to those pupils whose training must cease on graduation, and at the same time they offer preparation for admission to college or some higher technical school. The manual training high schools — or so-called technical high schools — were intended originally to train recruits for the trades, but they have not done so. They are institutions for general education, like the academic high schools, but, unlike them, serve to give a certain class of pupils a general high school education with the help of manual training, or, like them, to prepare their pupils for higher training in some college or engineering school.

Boys are not wanted in most of the skilled industries until they are sixteen years of age. The total result is a great number of boys and girls from fourteen to sixteen years of age, most of whom are at work in various kinds of juvenile occupations, in which they learn no trade, are subject to little if any beneficial general education, and often to much harmful education from shifting experience and environment. Large num-

bers of these children would be in school if the school promised preparation for some life pursuit. These years are of little economic value to such children, and there is little increase in the economic value of most of them as time goes on. Hence these are at present wasted years, — lost to the children because of a lack of economic growth, and to the industries because the children are not fitted to satisfy the demand for trained workers by the time they are old enough to be employed in the trades.

These years and the subsequent years are, however, valuable for industrial education; but there is at present no agency whereby this education is provided, save here and there to a limited extent only, and then chiefly by philanthropy.

Hence industrial schools are needed to supplement the existing school system, and to meet a new educational want which has developed with the evolution of our industries and commerce. Such schools would receive pupils fourteen or fifteen years of age who declare their intention to learn a trade; and would, therefore, be parallel to the existing public high schools, but independent of them.

Such schools must be established as independent schools, that is, separate, because the motive or end for which they exist, namely, *vocational training* as contrasted with *general training*, determines the value of the instruction in every detail.

By “independent” is meant a separate school, whether under the control of local authorities acting as agents of the commission, or under the control of boards of trustees co-operating with the commission.

In addition to independent day schools, evening schools are needed for pupils employed in trades during the day.

In order to keep such schools in close touch with the trades and with agriculture, there should be local advisory boards, including representatives of the industries concerned, employers and employees.

It is also the policy of the commission to secure the co-operation of employers, to the end that part-time courses for apprentices may be established in the proposed schools.

Although the statute confers no authority on the commission to work in co-operation with the existing public schools,

yet, because of the obvious preparatory relation of general education to the vocational training of the independent schools which municipalities working with the commission may provide, the commission is ready, whenever desired, to co-operate, so far as it can, with State or local authorities in promoting mutually helpful relations between them and the independent schools authorized by the statute.

WORK OF THE COMMISSION IN 1908.

Aid in the Planning and Establishment of Industrial Schools.

So different is the industrial school from the common school, that the industrial schools established through the aid of the commission have needed its guidance from the first presentation of the claims of industrial education through all phases of development.

The aid of the commission has occasionally been sought in the selection of competent teachers, and the commission is making progress in co-operation of this sort; but much remains to be done. The commission can also be of service in regard to the equipment.

In order that the commission may approve programs of study and recommend State aid, it is deemed necessary that such programs of study be submitted to the commission in advance of local adoption.

Special attention has been given to the collection of information which shall enable the best possible programs of instruction to be prepared in various industries and branches of industries and in agriculture, and assistance is rendered in the preparation of school programs.

The distinctive character of the instruction in the industrial schools is well illustrated in the subject of industrial arithmetic. The proper teaching of industrial arithmetic is widely different from the usual teaching of arithmetic, and should for each trade be taught by a person familiar with the trade processes and the related mathematical calculations; and this, in the present stage of development of such teaching, usually means that the arithmetic for each trade must be taught by a different teacher. The most satisfactory results have been obtained through teachers who have had commercial shop experience.

In planning the instruction to be given in an industrial school, the question of courses must be decided for each individual school. The courses of study at present being considered, and those already established in Beverly, Boston, Brockton, Cambridge, Chicopee, Lawrence, Montague, Natick, New Bedford, Northampton, Taunton, Pittsfield and Waltham are stated on pages 71-73 of this report, with more specific references to individual courses under the accounts of the schools in the respective cities.

The establishment of day industrial schools, in which extended courses are given, has necessitated the selection of text-books for instruction in certain subjects, and, in preparation for this, the examination of numbers of such books on special topics. Where a number of text-books of apparently equal value are available, they have all been placed at the service of the instructor, to aid him in making a choice.

Some of the text-books for the day schools, where long-continued instruction in any given subject is offered, have been selected from the best and most practical of those now in use in other institutions or for private instruction. In the purely technical lines the existing text-books in agriculture are more satisfactory than those in the mechanic arts.

Practically no text-books are used in the evening courses, — not because such books are not needed, but because satisfactory books are not available. The system of teaching is therefore purely expository, and pupils are required to take notes of the important facts presented by the instructors. In order that the pupils may not have to devote too much time in the class room to the taking of notes, and that the fundamental facts presented may be accurately recorded, in those subjects in which it seems best, some form of syllabus is prepared by the teacher and furnished to the pupil. Such a syllabus may vary from brief memoranda to a quite complete outline of the course.

The commission feels that it should offer all the encouragement and assistance that it can in the preparation of these notes, in order that they may be given in their best form, and that the best features of the instruction offered may be duly emphasized. The preparation of lecture notes has assumed

large proportions with the increase in the number of courses. In one course upwards of 50 pages of notes were prepared and issued to students taking the course. The putting in final form of such notes forms an important part of the work of the office. (See Appendix E.)

Rural Industrial Schools.

The dissemination of information concerning industrial education in rural communities, and the assistance which could be furnished by the commission in continuing and extending the work of industrial schools, has been carried on as opportunity permitted in response to requests.

The interest in agricultural education has been steadily increasing, and so numerous have been the requests for Bulletin No. 7, on the agricultural school, that the printing of a new edition has been necessary. The appreciation of the benefits to be derived from agricultural schools is felt first by thinking people in the centers of population of the farming districts, and is found to spread from these into the surrounding rural sections. This centralized interest becomes a powerful factor in the establishment of agricultural schools, both on account of the influence of the votes in the town meetings, and because the villages are the centers for concerted action and united interest.

It is in these villages that the rural industrial schools must be located, and the degree of success attained by the school depends much upon the local spirit in the villages and the support that they give to education in general, and especially to the providing of good library facilities.

Rural industrial schools of two types are provided for: —

1. The district type, authorized by section 4 of chapter 505 of the Acts of 1906, which says: "Two or more cities or towns may unite as a district for the maintenance of the industrial schools provided for in the preceding section, but no such district shall be created without the approval of the commission on industrial education."

Such a district school can be organized only through the co-operation of two or more towns or cities having educational needs of a somewhat similar character, each town or city paying

the share of the expense agreed upon. This union of interests requires most careful consideration on the part of a number of independent governing boards of different towns.

2. The type of school which results from the application of sections 3 and 4 of chapter 572 of the Acts of 1908. (See page 28.)

In this type of school a town or city establishes an industrial school in a convenient center having a location easy of access to neighboring towns, and receives such pupils from the latter as may so desire to attend this school under the conditions just referred to. Such a school is the one established at Montague, where pupils from five neighboring towns are in attendance.

Supervision of Schools.

The commission has kept in touch with the independent industrial schools operating under its supervision, through frequent inspection by its agents while the schools were in session, and frequent conferences with those entrusted with the conduct of the schools. The object of this supervision is the progressive improvement of the schools. The school officials and teachers are invited to consult with the secretary of the commission upon any matters relating to the schools in which the assistance or advice of the commission might be of help in making a school successful in its purpose, and they have freely accepted this invitation.

Much of the information gathered in the visits to the schools, and many of the recommendations of the teachers resulting from the practical knowledge gained in conducting the schools, have been of value in planning and outlining the work of the schools.

Industrial Education for Girls.

Especial attention is being given to this important problem. It is in many ways more difficult and complicated than that of the industrial training of boys. This is partly because of the double aim in the education of girls, who need to be prepared both for home life, and, generally, also for an occupation which will provide for self-support.

All women are at least potentially wives and mothers, and of those who enter trades, a majority return to home life after not many years. Domestic efficiency is thus of importance to

all women, and training for housekeeping and home management should be an essential part of the education of all girls.

On the other hand, a large majority of girls are obliged to earn their living for a time in industry, and that as early as possible; and the occupations that are open to young and totally untrained girls are for the most part ill-paid, without educational value, and not a stepping-stone to better positions. Such girls need the best practical trade instruction, in order that they may fit themselves for work which offers opportunities for advancing skill and wages, with all that these imply of higher standards. At the same time they, like all other girls, need preparation for home life, as has already been said.

Industrial education for girls must therefore provide (1) for trade instruction and (2) for the still more widely needed domestic training, and, besides these, (3) for the important work of agricultural schools.

Education for Trades. — Under the modern factory system, women are employed in occupations connected with nearly every branch of industry, and generally in such as are of the lowest grades as regards skill; and these occupations are affecting not only industry, but the standard of womanhood and the home. With girls, as with boys, the point at which general education loses its hold on the pupil is between the fourteenth and sixteenth years, and at these ages a large percentage of girls enter the unskilled occupations. The average girl remains at work a limited number of years, but during this time her social scale, her standard of efficiency and the type of her future home are largely determined.

These girls need independent day schools, furnishing them with definite special trade instruction, and aiming to train them for entrance into the more skilled occupations in which women are now employed. These schools should admit pupils of fourteen years or over who do not go beyond the grammar grades, and who wish to prepare for such industrial pursuits. The trades to be taught and the character and length of the courses would naturally vary with the local circumstances. The proposed Lynn school for shoe workers promises to be a valuable experiment in this field, and other schools are in contemplation elsewhere. (See Appendix B.)

In such day industrial schools for girls the major part of the time should be devoted to the fundamental principles and practices of the trade, with such instruction in other subjects as contributes directly to trade needs; and with this should go domestic instruction, both direct and indirect.

Besides such independent day industrial schools, the commission favors the establishment of part-time schools for girls who are obliged to become wage earners at an early age, and who are therefore obliged to enter the unskilled occupations. It is hoped that, with the co-operation of employers, such schools may be established to enable these girls to continue their education. In industries where a large amount of unskilled labor is used, such as food-packing, errand service and the work of cash and bundle girls, employers may be induced to take on a double force of girls, and permit them to attend school in alternate weeks. The course of study might or might not offer preparation for advance in the particular industry in which the girls were employed, but would aim to increase their efficiency in their present occupations, and prepare them for other more skilled occupations which would open to them as they grew older.

A third form of trade education is that in evening classes. Here women already employed during the day may learn to advance themselves; and also those who wish to prepare for teaching in industrial schools may get training to that end. The evening classes for women in trades should conform to the needs of the localities, the general aim being to increase industrial efficiency, and give greater opportunity to women whose daily occupations do not lead to more advanced positions without additional training.

Education for Domestic Life. — A high standard of skill in housekeeping in all its branches is of such far-reaching effect upon the future of any community that it seems strange that so little effort is spent to make such a standard general. Fortunately, there are signs of a wholesome reaction from the tendency to regard housekeeping as something which requires no special preparation. Beginning at the top, a new enthusiasm for domestic economy will in time shape public opinion; but it is a part of the duty of the commission, not only to make such industrial

education accessible to those who feel the need of it, but also to help develop an appreciation of the need.

Training for domestic life may be given as an integral part of the work of trade schools and agricultural schools, but it is expected that separate day schools for vocational domestic training may also be established.

Meanwhile, the commission is experimenting with evening classes which offer to women and girls at work during the day an opportunity to fit themselves better for family life, or, in some cases, enable them to prove their fitness, and begin to prepare themselves for professional work as seamstress, dress-maker, milliner, and so on.

In spite of the fact that such evening classes as are now in operation are for the most part in an embryonic condition, and in spite of the fatigue and often irregular attendance of the pupils, something has been accomplished. But the work needs to be made more systematic and effective, and it is hoped that plans can be worked out for series of classes to follow and supplement one another, giving the pupil who completes the whole course a goal to work for, — a certificate, or other formal recognition.

While the commission feels that preparation for home life must be a vital part of girls' trade schools, the amount of time devoted to classes in cooking, sewing and other domestic branches will depend on the length of the course and the pressure on the hours available from the exigencies of trade instruction. Experience shows that, in addition to the work done in classes dealing especially with domestic subjects, the entire life of a trade school can be organized in a way to develop a considerable domestic sense. The school luncheon can be bought, prepared and served by the girls, thus bringing in practical lessons in cooking, dishwashing, care of the kitchen and dining rooms, and keeping of household accounts. Garments made in the sewing classes are often soiled by too much handling, and give lessons in laundering a very natural place in an industrial school. Talks on personal hygiene, important in the education of a good trade worker, have also their beneficial effect upon the girl as a homemaker. Courses in good reading and social clubs for general improvement of

the members of the school are other means for indirectly achieving, at least in part, what could never be directly achieved for girls who would otherwise enter industry without any home training.

Perhaps more important in its effect on the future home of the trade school pupil than either direct or incidental instruction in domestic subjects, is the ultimate influence of her industrial education. The young woman whose work is based on good training, who understands her work and is interested in it, who is conscious of her social obligations to her fellow workers, ambitious to progress and intelligent as to how she can do so, earning enough to enable her to maintain a good standard of physical and nervous energy and of personal appearance, — such a trained worker will not only do better industrially, but she will make a much better home, if she leaves her trade, than she would have been likely to do otherwise.

How far domestic training, either in day or evening classes, can be made to serve those engaging in paid domestic work of the common types, is a question. Ways of raising the standard of the vocation of housework must be unremittingly sought for; and as housekeepers learn to establish more businesslike methods in domestic work, and as the efficiency of the workers increases, the problem will grow easier.

Independent Agricultural Schools. — In such schools girls may be trained for the work of the farm-home, taking up, besides the ordinary school branches, not only cooking, sewing and housework, but poultry raising, dairying, gardening and perhaps other domestic and agricultural industries. Further consideration of such schools is omitted, in view of the fact that a description is given elsewhere of the work of the agricultural schools now in operation at Northampton and Montague.

Compilation of a Classified List of Schools now preparing for Women's Industries. — The commission has felt strongly the need for definite, authentic information relating to schools which help to qualify women for industrial life. No classified list of such schools is known to the commission, but it can report progress in the preparation of a list which shall present the actual conditions of the schools in the United States, Eng-

land, France and Germany, which offer courses that may be characterized as women's industrial courses. This list will contain those schools which give instruction in trades, house-keeping, agriculture, and miscellaneous or unclassified pursuits.

This compilation will not only give a classified list of schools in which women may receive industrial instruction, but, so far as possible, the results of a study of each program will be given, and the schools arranged according to the classes which they typify. The apparent success of different types of schools will be studied, and this ought to aid in the selection of the most desirable features of each type of school from which to make provisional programs for girls' industrial schools.

Supervision of Instruction for Women and Girls. — With the establishment of evening industrial schools for girls, and of the agricultural schools which include courses for girls, it became necessary for the commission to employ a special agent to assist in planning and supervising such work. After a search for a person who had received the necessary practical and theoretical training, the commission appointed Miss Florence M. Marshall to this position.

Miss Marshall was graduated from Boston University with the degree of A.B. in 1899. From 1900 to 1903 she was a student at Teachers College, Columbia University, devoting her entire time to courses in education, domestic science and art and manual training, receiving in 1903 the teachers' diploma in manual training. In 1903 she held an honor position in manual training in the Horace Mann School, New York City, and in 1904 was called to Boston to found the Boston Trade School for Girls, retaining the position of director of that school until she was called to undertake the present work with the commission.

Previous to her college course Miss Marshall was a practical worker, who had spent several years in factories and workshops, and had had supervision of clubs and homes for working girls; and during the past four years she has been prominently connected with the progressive movement for industrial education for women.

Accounts.

An important work in connection with the establishment and maintenance of industrial schools has been the formulating of a system of accounting, which should be simple enough to permit its being carried on by school officials untrained in systematic bookkeeping, and yet elastic enough to include the various expenditures for schools differing as widely in scope, equipment and management as do the industrial schools operating under the direction of the commission. (For the plan of the system of accounting, see Appendix F.)

Schools established.

Both day and evening schools have been established, each to fill a distinct province in industrial education.

DAY INDUSTRIAL SCHOOLS.

Day industrial schools have been established in Montague and Northampton; and schools for New Bedford and Newton have been authorized, and plans for their being put in active operation are being pushed as rapidly as possible.

These schools offer, during a series of years, full-time courses for those youths of fourteen years of age and upwards who can devote their whole time to preparation for industrial life, and part-time courses for those who can devote part of the daytime to industrial school work, the remainder of the daytime being occupied in a commercial shop.

Montague Day Agricultural School.

The opening of the agricultural school at Montague, on Sept. 7, 1908, marked the beginning of a new agricultural education in the State of Massachusetts, for it was the first agricultural school of secondary school grade to be opened in the State under the law of chapter 572, Acts of 1908, which says, in section 3:—

Any city or town may also establish independent industrial schools in charge of a board of trustees which shall have authority to provide and maintain such schools. Such schools, if approved by the com-

mission on industrial education as to location, courses and methods of instruction, shall receive reimbursement as provided in section four of said chapter five hundred and five [of 1906].

The town of Montague, which lies in the Connecticut valley just southeast of Greenfield and on the east of Deerfield, has for some years had two high schools, one in the manufacturing village of Turner's Falls and the other in Montague proper, which is the agricultural center.

Great interest is taken in the management of the local schools, and their excellence is shown by the remarkably high intellectual standards of the community.

In order better to meet the needs of the community, it was felt by the Montague school committee that systematic instruction in agriculture should be offered to pupils of high school age. Accordingly, a letter was addressed to the Commission on Industrial Education by the secretary of the school committee, which contained the following statement: —

Will you kindly inform me as to the probability of obtaining State aid towards the establishment of an agricultural course in our high school at Montague center? The town maintains two high schools; the one at Montague is in an agricultural community, and such a course would be of undoubted benefit, in fact, there may be a question whether it would not be better to make it a purely agricultural school. Any information which you can give will be highly appreciated. We want to study the whole situation before taking action.

As a result of this study, the school committee decided to recommend the establishment of an agricultural school of secondary grade at Montague.

Accordingly, at a meeting held June 30, 1908, the town voted to abolish the high school in the village of Montague, and to establish and maintain an agricultural school in co-operation with the State Commission on Industrial Education, — provision being made for those children who desired a purely cultural high school, at Turner's Falls.

The board of trustees of the agricultural school was fixed to consist of five members; the chairman of the school committee and the superintendent of schools are made ex-officio members of the board. Mr. E. L. Bartlett, Mr. W. H. Nims and Miss

Sewing, two double periods.	
Singing,	1
Drawing,	1

First Year.

Algebra,	5
English,	3
Current events,	1
History (two terms),	4
Agriculture,	—
Soil: —	
(a) Tillage.	
(b) Drainage.	
(c) Irrigation.	
Physiology (one term),	4
Carpentry, two double periods.	
Sewing, two double periods.	
Drawing,	1
Singing,	1

Second Year.

Geometry,	5
English,	3
Current events,	1
Farm bookkeeping (one-half year),	4
History (e),	4
History and civil government,	4
General farming,	3
(a) Farm crops.	
(b) Fertilizers and manures.	
(c) Crop rotation.	
(d) Plant diseases.	
(e) Insect pests.	
(f) Spraying.	

Mechanical work, two double periods.	
Sewing, two double periods.	
Cooking, two double periods.	
Drawing (e),	1
Singing,	1

Third Year.

English,	3
Current events,	1
French or German (e),	5
Solid geometry,	3
Physics,	4

Rural economics,	2
Horticulture,	3
(a) Fruit growing.	
(b) Market gardening.	
(c) Hotbeds and greenhouses.	
(d) Floriculture.	
(e) Landscape gardening.	
Cooking, two double periods.	
Domestic science, two double periods..	
Mechanical work, two double periods.	
Laundrying,	—
Drawing (e),	1
Singing,	1

Fourth Year.

English,	4
Current events,	1
General reviews (e),	4
French or German (e),	5
Chemistry,	4
Trigonometry (e),	3
Farm economics,	2
Animal husbandry,	3
(a) Breeds of live stock.	
(b) Feeding.	
(c) Dairying.	
(d) Poultry farming.	
(e) Apiculture.	
Cooking, two double periods.	
Domestic science,	—
Mechanical work, two double periods.	
Drawing (e),	1
Singing,	1

NOTE. — (e) elective. A numeral placed opposite a subject indicates the number of periods per week.

Pupils from without the town of Montague are received into the school under the provisions of section 4 of chapter 572, Acts of 1908, which reads as follows: —

Any resident of Massachusetts may, with the approval of the commission on industrial education, attend an independent industrial school, as provided for in this act, located in any city or town other than that in which he resides, provided there is no such school supported in whole or in part by the city or town in which he resides, upon pay-

ment by the city or town of his residence of such tuition fee as may be fixed by said commission; and the commonwealth shall repay to any city or town one-half of all such payments. If any city or town neglects or refuses to pay for such tuition, it shall be liable therefor, in an action of contract, to the legally constituted authorities of the school which the pupil attended under the approval of said commission.

An important matter in connection with the Montague agricultural school, as with other schools of this character, is the transportation facilities. Three methods of transportation are available: the main line of the Fitchburg railroad passes near the village of Montague at a distance of about a mile from the town center and from the school, and accommodation trains passing both east and west stop at Montague station at convenient hours morning and evening; likewise, trains on the Vermont Central pass both north and south morning and evening, stopping at a station a little over a mile to the east of the school; electric cars coming from the northwest, north and northeast likewise furnish means of transportation for the section to the north of the school. Many of the pupils come, however, in the school teams, several of which run morning and evening throughout the school year.

The school sessions are held on each week day, except Saturday, from 8.45 A.M. to 3 P.M. with an hour's intermission, from 12 to 1. The school day is divided into seven periods of forty minutes each.

The town library in the village of Montague is indicative of the high intellectual plane of the community. Its 8,000 volumes not only embrace a wise selection of the best and latest standard works on a great number of subjects, but in those particular lines which aid in making the reader broad-minded, observing and reflective, the collection is particularly rich. Free access to the shelves aids greatly in promoting a wide acquaintance with the books. It is intended to put the pupils of the new school in closest touch with the books of this library, by giving lists of the best reference books, not only relating to the subjects studied, but also in the general lines which will help to broaden and instruct the boy or girl desiring to make the best preparation for a successful life in a rural community.

Provision is made for the establishment of a close connection between the school and the agricultural community by the giving of lectures and holding conferences on such topics as are of special practical interest to the agriculturists of the Montague section.

At the opening of the Montague agricultural school, on Sept. 7, 1908, 48 pupils were registered, who had to be distributed over five classes, since among those admitted to the school there were pupils of various degrees of advancement above the grammar school work, which at Montague ends with the eighth grade.

When the pupils had been separated according to their preparation, it was found that there were 16 in the preparatory class, 13 in the first year, 8 in the second year, 4 in the third year and 7 in the fourth year. Of the 29 pupils in the two lower classes, 16 are boys and 13 are girls; also, of these 29 pupils, 14 are from outlying towns. Of the higher classes, however, only 5 pupils are from outside towns.

Five towns besides Montague are represented in the school, and pupils came from within a radial distance of 10 miles, although the extreme distance is even further by the lines of transportation. The towns represented are Shelburne, Erving, Wendell, Leverett and Sunderland, the majority of the pupils, of course, coming from Montague, and of these some from as far distant as Miller's Falls.

The laboratory is supplied with some chemical and physical apparatus, and demonstration apparatus for certain processes in agricultural practice. There is also a collection of named geological specimens, which is useful in the study of soils and of applied physical geography in general.

The instruction in woodworking is carried on in the basement of the building, where a large room is fitted up with work benches.

For carrying on the domestic science course a large supply of cooking apparatus has been provided, which is now in use.

An excellent collection of domestic science books has been provided, which is accessible to members of the class.

A collection of the most recent text-books on agriculture,

presented to the commission by the publishers, has been loaned to the school by the commission, and is made freely accessible to the pupils, in order to afford an opportunity for them to widen their knowledge on the topics treated in the prescribed text-book, to supplement the information of the text-book on points scantily treated or omitted, and to teach the pupils how to use reference books in agricultural literature.

Current agricultural periodical literature is also furnished the school, in order that the older pupils may be encouraged to form the habit of reading the best literature of this class.

Northampton Day Industrial School.

The city of Northampton had received from Oliver Smith a fund, the proceeds of which should be used for agricultural and mechanical education, but had not seen its way clear to embark upon the enterprise of establishing a school, as the fund had been found to be altogether inadequate. It was not until after the Commission on Industrial Education had responded favorably to the petition of the city government that active steps were taken toward the establishment of the Northampton school. Plans for the first building under construction were submitted to the commission for approval before the contract was placed.

The institution came into being following the petition of the city government at Northampton, dated March 15, 1907, asking that the commission co-operate with the city of Northampton and its agents, the superintendents of Smith's Agricultural School, in the maintenance of an independent industrial school, in accordance with the provisions of chapter 505 of the acts of 1906. Sept. 4, 1908, the Northampton city government passed supplementary votes, in substance as follows: —

1. The present agents of the city, under the will of Oliver Smith, and their successors in said office, are appointed and constituted trustees to provide, maintain and have charge of the said school.

2. The said independent industrial school shall be known as Smith's Agricultural School and Northampton School of Technology.

3. The sum of \$20,000 shall be and is hereby appropriated for the maintenance of Smith's Agricultural School and Northampton School

of Technology for the years 1908 and 1909, in anticipation of the receipt by the city of the income from Smith's agricultural school fund, and from the payment by the Commonwealth in aid of this independent industrial school.

The agents authorized to act for the city of Northampton were Edward E. Wood, Myron C. Bailey and Seth S. Warner; and through their secretary this board, which had been elected by the voters of the city as superintendents of the said school, in the letter written towards the end of March, 1907, invited the commission to a joint meeting to be held for the consideration of the details concerning the industrial school by the city of Northampton.

Various meetings and conferences were held by the commission and its officers, at which plans for the school were discussed.

The commission, at a meeting held Feb. 3, 1908, voted:—

That whereas the city of Northampton, under date of March 15, 1907, requested the Commission on Industrial Education to co-operate with the city of Northampton and its agents, the superintendents of Smith's Agricultural School, in the maintenance of said school, in accordance with the provisions of chapter 505 of the Acts of 1906, Mr. Edward E. Wood, Mr. Myron C. Bailey and Mr. Seth S. Warner are hereby appointed the agents of the commission in the administration of the agricultural school to be established at Northampton under chapter 505 of the Acts of 1906, to be known as Smith's Agricultural School, with such authority as the commission may confer upon such agents.

At the meeting of the commission on Feb. 3, 1908, Rufus W. Stimson was elected director of the Smith's Agricultural School and Northampton School of Technology. At subsequent times the various instructors have been appointed in anticipation of the continuance of the joint arrangement agreed between the city of Northampton and the commission.

In early life Mr. Stimson had experience in work of a practical nature. He was graduated from Harvard University, A.B. in 1895 and A.M. in 1896. He received the degree B.D. from Yale in 1897. Mr. Stimson was a professor in the Connecticut Agricultural College for four years, and was president

of that institution for six years. Mr. Stimson at once entered upon his duties, and began the preparation of detailed plans for the necessary buildings for the school, as well as the program of studies.

Purposes. — The aim of the school will be to provide training in agriculture, with a view to practical and profitable farming; training in household economy, with a view to efficient and enjoyable housekeeping and homemaking; and training in mechanic arts, as a foundation for desirable apprenticeships in the cases of boys who enter at fourteen years of age. Whatever a public industrial school of such breadth of curriculum and of equal resources can do, this new school will endeavor to do toward making work more intelligent, better directed and better done.

Methods. — School practice: Pupils will be taught to do things by actually doing them. Exercises will be given which train to accuracy first, then to speed. This will apply no less to such things as the computing of rations than to such as the making of mortises. Recitations and discussions, where the student gives what he has previously got; laboratory work, shop work and field work, where knowledge is applied and new knowledge is gained at first hand, — these will be the methods of the school. But every effort will be made to relate the training of the school intimately and at once to practical affairs off the school premises.

School and farm: Pupils preparing for farming will best serve their own ends and the ends of the school by living at home. While the first-year pupil is studying the elements of soils and plant life, he will have a plot of ground at the school, where he will apply his knowledge under the direction of his instructor. At the same time he will be expected to have plots of ground at home, preferably parts of the kitchen and flower gardens, where he will apply the same methods to the same kinds of plants on the soil he may some day own. There his methods may be compared with his father's and those of his neighbors. He will be keen to learn from them; perhaps his people may now and then learn something from him. In the second year there will be like training in handling the smaller animals of the farm, — the sheep, or swine, or poultry, or

bees; in the third year, in connection with fruit growing and market gardening; and in the fourth year, in handling the larger farm animals, including dairy cattle. Every farm represented by a student will thus become an essential part of the working outfit of the school. There will be no sundering of the ties of home when school ties are formed; on the contrary, a good home farm should become dearer to the boy's heart, more enjoyable and more profitable every day. Each farm will contribute of its best to the training of the school; it is hoped that the school will prove to be a help to every farm from which a student is sent.

School and shop: It may be a more difficult matter to relate the school to the manufacturing operations of Northampton and neighboring towns. Training for shop work and for the building trades, so far as it may be found possible to provide such training, must for the present, probably, be confined to the facilities found on the premises of the school, including workshops with power and modern tools and machines, supplemented by visits to buildings in process of erection and to manufacturing plants. It is strongly hoped that arrangements may be made in the near future for co-operation between shops and factories and the school, for the better training of the boys and girls who are obliged to aid in the support of their families.

School and home: Just as the boys will participate during term-time first in one branch and then in another of practical farming, so the girls will participate in the activities of the household. Each girl will apply under her home conditions the training of the day at school, and the girl who lives at home may be expected to profit most by what she is taught. Home nursing and emergencies; household hygiene and sanitation; the chemistry of goods and the chemistry of cleaning; laundry work; the planning, preparation and serving of appetizing and wholesome meals; needlework, applied to mending, dressmaking and millinery; embroidery and design, — all will thus take on a double interest and value, through the vital, immediate relationship of the training of the school to the economy and the beauty of the home.

Expenses. — Text-books and tuition will be free to all students.

Tuition on behalf of students from other Massachusetts towns or cities than Northampton which do not support in whole or in part an independent industrial school must be paid by the towns in which these students reside. The fee for each student in such cases will be \$100 a school year. One-half of the sum paid by any town will be repaid to that town by the State. (See Acts of 1908, chapter 572, section 4.)

At a meeting of the commission, Sept. 14, 1908, it was voted: —

That the tuition fee of \$100 per year to pupils of Smith's Agricultural School and Northampton School of Technology, other than residents of the city of Northampton, as voted by the board of trustees, be and hereby is approved.

The school has no dormitories or boarding department; necessary living expenses and transportation charges must therefore be met by the students or their parents.

Location. — Temporary quarters: The school opened in the old high school building, next door to the present Northampton high school, on New South Street, near Main. No spot could be more easily accessible. By courtesy of the city school committee, six large rooms are available for classes until the new building is completed.

Permanent location: The permanent location of the school will be on Locust Street, adjacent to the Dickinson Hospital. To the west and south of the Dickinson Hospital the school owns about 100 acres of land. This lies between Locust and Elm streets, scarcely more than a mile from the city hall, and cost some \$20,000. On the middle of a tableland of 16 acres, which commands a view of Mt. Tom to the south, the first building of the school is now being erected, — a large red-brick structure, trimmed with limestone, 200 feet long by nearly 200 feet deep through its central section. Both the building, in certain respects unique in school architecture, and the well-diversified land about it, will be admirably adapted to the uses of such an institution. Of three electric car lines, one comes to the southeast boundary of the property and two pass directly in front of the school on Locust Street.

The school opened on Oct. 1, 1908, in the temporary quar-

ters. It is expected that the new building will be ready for occupancy about April 1, 1909.

At the close of school, Friday, October 9, the enrollment in the school was 114; of these, 30 were girls. The number from outside Northampton was 45.

The enrollment in the agricultural course was 30, in the shop course was 54, and in the course in household economics was 30.

An examination of the occupations of the parents shows that the total number of farm families represented in the school was 32; mechanics, 38; and business men, 25.

DETAILED PROGRAM OF COURSES OF STUDY. (SUBJECT TO REVISION.)

Course No. 1. Preparation for Farming,—Four Years.

(Open to graduates of rural schools and to ninth-grade graduates of other schools fourteen years of age or older.)

First Year.

Soils and plant life.
Physical geography.
Elementary science.
Practical arithmetic.
Bookkeeping.
Freehand drawing.
English.
Algebra.
American history and civil government.
Mechanical work.

Second Year.

Animal husbandry.
Botany.
Farm chemistry.
Farm physics.
Plane geometry.
English.
General history.
Mechanical work.

Third Year.

Rural economics.
Fruit growing.
Market gardening.
Floriculture.
Landscape gardening.
Forestry.
Insect life.
Bird life.
Bees.
Plant diseases.
Spraying.
Bacteriology of soils.
Fertilizers.
Drainage and irrigation.
Greenhouses and hotbeds.
Weather and climate.
Physiology and hygiene.
English.
Use of building materials.

The fourth year of the course (omitted in 1908-09) will emphasize animal husbandry, including poultry raising, dairying and veterinary science.

Course No. 2. Preparation for Mechanical Work, — Four Years.

(Open to graduates of rural schools and to ninth-grade graduates of other schools fourteen years of age or older.)

The first two years of this course will be the same as the first two of Course No. 1, except that extra mechanical drawing and shop practice may take the places of soils, plant life and animal husbandry. The third and fourth years will not be offered in 1908-09.

Course No. 3. Preparation for Housekeeping and Homemaking, — Four Years.

(Open to graduates of rural schools and to ninth-grade graduates of other schools fourteen years of age or older.)

The first two years of this course will be the same as the first two of Course No. 1, except that instead of soils, plant life and animal husbandry, there may be sewing or cooking. No applicants for third or fourth year instruction in domestic science and art are at present expected. Should there be applicants, however, a good course will be given.

EVENING INDUSTRIAL SCHOOLS.

Evening industrial schools have been established in Beverly, Boston, Brockton, Cambridge, Chicopee, Lawrence, Natick, New Bedford, Pittsfield, Taunton and Waltham.

The courses in these schools are designed to meet the needs of pupils who are occupied as workers during the day, and they have been planned to suit local conditions; consequently, not only are courses in different subjects offered in different cities and towns, but also the courses on the same general subject vary in these schools. The various courses offered are mentioned under each city and also in the table on pages 71-73.

In the establishment of these evening industrial schools, in addition to new courses it has been found expedient to include courses in industrial drawing, and courses for women and girls in domestic science, home dressmaking and home millinery, which in some cases are of a character in general similar to those previously conducted in several of the cities. Under these latter circumstances it has been the plan of the commission to modify these courses as rapidly as possible, in order that they may more nearly meet the special needs of those employed in the industrial establishments of the locality, as well as the needs of the women and girls working at home.

It is believed that the drawing courses should be given in a way which will more nearly meet the mechanic's needs; this is accomplished by giving less attention to developing the technique of the draftsman's calling, and more attention to expressing the mechanic's ideas in the language of drawings. This involves rough sketching, the making of rough working drawings with dimensions, the proper scaling of drawings, the solving of mathematical problems relating specifically to such work, and the interpretation of the drawings of others.

The classes for girls and women should be under specially trained teachers, whether for those women and girls who expect to prepare to work in the industries, or for those who carry on the work of their homes.

This work has progressed slowly, owing to the difficulty of securing properly trained teachers.

Beverly Evening Industrial School.

The first step in the inauguration of the Beverly evening industrial school was the presentation by the commission of the opportunities for such a school in Beverly. After several meetings of the secretary of the commission and the superintendent of schools of Beverly, and others directly interested in the proposal, the question was referred to the Beverly school committee. At the meeting of this committee, held in October, 1907, it was unanimously voted to request the commission to establish industrial evening schools in Beverly, as provided for in chapter 505 of the Acts of 1906.

At a meeting of the commission, held Oct. 21, 1907, it was voted to accept the proposition of the Beverly school committee, so far as it relates to the industrial drawing courses and the appropriate shop mathematics, provided the schools shall be approved in accordance with chapter 505 of the Acts of 1906.

The commission appointed as its local agents Edward L. Millett, Mary B. Smith, Fred O. Roundy and Edward S. Webber, all of whom serve on the evening school committee.

The necessary steps for the establishment of the evening industrial school, with courses in machine drawing, architec-

tural drawing and shop mathematics, were taken, and the commission co-operated in carrying out the details of this work.

The instruction is given in the high school building, and its unusually well-equipped physical and chemical laboratories, supplied with the latest conveniences and the best devices, are used by the pupils in the industrial courses. The drawing rooms are admirably lighted, and every encouragement is offered for doing the best of work in industrial drawing.

The commission has appointed the following advisory committee for Beverly, to study the local industrial educational needs and to co-operate with the local agents of the commission and with the commission in promoting the interests of industrial education in that city: George H. Vose, chairman, assistant superintendent of the United Shoe Machinery Company; Charles A. King, secretary of the Beverly Board of Trade, and publisher of the "Citizen;" Clifford B. Bray, of Bray & Stanley, shoe manufacturers; James B. Dow, of Beverly Farms, engaged in landscape gardening and conducting greenhouses; Albert W. Dodge, treasurer of the local carpenters' union, a representative of organized labor; Miss Annie March Kilham, assistant treasurer of the New England Industrial School for Deaf Mutes; Samuel Cole, agriculturalist; Walter H. Naylor, principal of the Beverly evening industrial school; and Adelbert L. Safford, superintendent of schools, Beverly.

On Nov. 12, 1908, the secretary of the commission upon invitation attended the first meeting of the advisory committee at Beverly, at which he outlined the nature of the courses which seemed most desirable for Beverly, and suggested the lines of investigation and inquiry in which the local committee could be of greatest service to the local community as well as to the State. Since this is the first local advisory committee to be appointed in the State, much interest centered in this meeting; and the helpful attitude of the members is significant of the value of such committees in other places for the advancement of industrial education.

That Beverly as a community is interested in the establishment of a local agricultural school, as well as one teaching the mechanical industries, is shown by the public interest which has been expressed in such a school.

There are many places in Beverly, such as the Cherry Hill farm, the Swift-moor farm and the many commercial greenhouses at North Beverly and other sections of the city, where students could get training in the practical work.

With the estates along the shore, where forestry and landscape work requires constant attention, with the commercial greenhouses, the florists, the poultry and stock farms, the dairy farms and other industries of this character, there would be a good demand for workers who had received an agricultural school training.

Sessions of the evening industrial school in Beverly are held during a period of fifteen weeks, on Monday, Tuesday, Wednesday and Thursday evenings, from 7.15 to 9.15. The subjects taught in the spring term of 1908 were architectural and machine industrial drawing, and shop and engineering mathematics; but in the fall term of 1908 the following additional courses were given: freehand industrial drawing, applied science and gas engines. Instruction in each subject is given two nights a week except for gas engines. On Monday and Wednesday evenings are given industrial machine drawing, both elementary and advanced, freehand industrial drawing and applied science. On Tuesday and Thursday evenings are given architectural drawing, shop mathematics and engineering mathematics. Instruction in gas engines is given on all four nights; the class being divided into four sections, each pupil attends on but one night a week.

The engineering courses in mathematics take up the more important fundamental principles of arithmetic, algebra, plane geometry and plane trigonometry, which find application in the practical problems to be considered by the pupils.

The instruction in shop mathematics combines pure mathematics and the application in the working out of shop problems. The young mechanics in attendance are encouraged to bring into the class room problems which arise in their shop practice, and frequently the problems occurring that very day are discussed. The work in practical mathematics offers an opportunity to brush up in mathematical principles, and gives their applications to shop work, as well as the short cuts in calculations adopted in the best shops.

In the drawing classes special attention is given to the interpretations of drawings, rather than to the development of skill in the making of elaborate and complicated plan drawings, such as would be required of a skilled draftsman.

Architectural Drawing. — This includes the use of instruments, line drawing, inking and lettering, geometrical problems, building details, house plans, framing plans and elevation, isometric drawing, window sections and cabinet details, stable plans and drawings.

In this class are taught blue-print reading, laying out of floor plans, piping and wiring, and such practical work as will benefit persons connected with the building trades.

Industrial Machine Drawing. — First year: use of instruments, terms and symbols, conventions, standard sections, etc., geometrical problems, simple machine details, screw, helix, etc., projections and developments, machine details and assembly. Second year: spur, bevel and worm gears, cams and link motions, belting and other special problems.

Freehand Industrial Drawing. — This class is formed for the benefit of those engaged in such occupations as require good eye training. Such instruction is given as will be of benefit to those working in a great variety of trades, and includes the making of sketches, giving special attention to proportions, taste, utility and strength. This class is intended to appeal to printers, photographers, wood and stone carvers, painters, plumbers, metal workers, and all who need to guide the hand skillfully by the eye in construction, to design attractive shapes for articles to be constructed, or to fill spaces in good proportion by lettering or ornamental designs. Attendance upon this class will also be very beneficial to all mechanics and others who feel the need of the ability to make a quick sketch of some construction, which can be worked out later in detail in the working drawings.

Applied Science. — This includes mechanics, electricity and chemistry.

Gas Engines. — The class in the study of gasoline engines has separate instruction in the theory and practice of the machines. Engines of different types are studied; they are taken apart and the different mechanisms discussed; they are then put together again. A disarrangement of the mechanisms is purposely effected, and the pupils must find out the trouble.

Statistics regarding the enrollment for the various classes are given in a table on page 71.

Boston Evening Industrial School.

The commission has been considering the various opportunities for the development of industrial schools in Boston. During the past two years conferences have been held and correspondence exchanged with the Boston school committee, relative to the establishment of an industrial school.

In September, 1908, the commission held a conference with the Boston school committee in regard to the co-operation of the commission with the committee in the establishment of an evening industrial school in the city of Boston. Mr. Stratton D. Brooks, the superintendent of schools, and the secretary of the commission, were requested to prepare a report as to the best method for such co-operation.

At a subsequent meeting of the commission an order was received by it from the Boston school committee, requesting the commission to establish an evening industrial school in the city of Boston.

The commission voted that the Boston school committee be appointed agents of this commission in the maintenance of the Boston evening industrial school.

The Boston evening industrial school was opened on Monday evening, Oct. 19, 1908, in the building occupied by the Mechanic Arts high school, with branches in the old City Hall, City Square, Charlestown, the old high school, East Boston, the old Dearborn school, Roxbury, and on the top floor of the Boston Latin school.

The school sessions are held from 7.30 to 9.30, on Monday, Wednesday and Friday evenings. The instruction is given on sixty-five nights, during a period of twenty-two weeks.

The courses offered embrace industrial drawing, industrial mathematics, steam engineering for firemen, and jig and tool making. The courses in industrial drawing include mechanical, architectural and freehand drawing, besides design in various applied arts and ship drafting.

The special subjects given in the main school and in the branches are as follows: At the central school in the Mechanic Arts high school building are given machine and architectural

drawing, industrial mathematics, steam engineering, and jig and tool making. At the Charlestown branch are given mechanical industrial drawing and ship drafting. In the East Boston branch are given elementary and advanced machine drawing, architectural drawing, ship and yacht design, and drawing for pattern and sheet metal workers. In the Roxbury school are given mechanical and freehand industrial drawing. In the Boston Latin school building are given freehand industrial drawing and industrial design. The instruction in industrial design includes designs for book covers, plates, lettering, metal, silver and jewelry work, embroidery, costumes, decoration, leaded glass, wall paper and furniture.

The courses in industrial drawing in general cover a period of three years, except the one in drawing applied to building construction, and which is suitable for carpenters, masons and cabinet makers, which requires two years.

From the pupils of the drawing classes are formed the classes in shop mathematics; this latter subject is as yet voluntary, and has not attracted as many pupils as its importance would justify. The enrollment is largely made up of men at work in various trades, who desire to get a general knowledge of blue-prints, plans, etc.; also, a considerable number are aiming to become draftsmen.

Statistics regarding enrollment for the various classes are given in a table on page 71.

Brockton Evening Industrial School.

At a meeting held in September, 1908, the school committee of Brockton passed a vote requesting the commission to establish an evening industrial school in Brockton.

After due consideration by the commission, it was voted to establish evening industrial schools in the city of Brockton, as provided in chapter 505 of the Acts of 1906. It was also voted that the school committee of Brockton be appointed agents of the commission for the conduct and maintenance of said schools.

The Brockton evening industrial school opened Oct. 26, 1908. Instruction is to be given on sixty nights, the schools being in

session four nights each week, Monday, Tuesday, Thursday and Friday, from 7.15 to 9.15.

The courses in the Brockton evening industrial schools are: industrial drawing (including architectural and mechanical), steam engineering, sewing, dressmaking and millinery. These courses are planned for Brockton residents who work during the day in industrial establishments.

In the high school building are held the classes in industrial drawing, freehand industrial drawing, and boiler and engine room work.

In the architectural and mechanical industrial drawing class the pupils are all men engaged in the trades, and past the age of youth. The majority of them are trying to obtain aid for their present work, and the course is made sufficiently flexible to enable each pupil to obtain instruction in his own special line. Instruction is given two nights a week.

The instruction in boiler and engine room work, including also heating and ventilation, consists chiefly of lectures, which are given once a week.

Evening instruction is given in dressmaking, millinery and plain sewing, in the Huntington, Sprague and Winthrop school buildings. In the Sprague school there are two classes in elementary dressmaking, one class in advanced dressmaking and one class in plain sewing, and there is also a class in embroidery. Each class has two periods of instruction a week. The pupils are largely housekeepers and girls who work in the shops.

In the Winthrop school building classes are held in elementary and advanced dressmaking, millinery and plain sewing. Each class has two periods of instruction per week. The pupils — mostly foreigners — are housekeepers and girls from the shops.

In the Huntington school building classes are held in plain sewing, elementary and advanced dressmaking and millinery. Each class has two periods of instruction per week. As in the case of the Winthrop school, the pupils are mostly foreigners, many of whom have difficulty in understanding English.

Statistics regarding the enrollment of the various classes are given in a table on page 71.

Cambridge Evening Industrial School.

The initiative for the establishment of an evening industrial school in Cambridge was taken at the beginning of the year 1907. After some consideration of the subject, in May the school board ordered the committee on evening schools to inquire into the advisability of conducting certain industrial courses, with the co-operation of this commission.

In October, 1907, the school committee, by vote, requested the commission to establish an evening industrial school in Cambridge. The commission voted to establish industrial courses, as requested, for machinists, pattern makers and forgers; also, courses in drawing, including mechanical, architectural and freehand; domestic science; dressmaking and millinery.

The Cambridge evening industrial school was established in October, 1907. Instruction is given on Monday, Wednesday and Friday evenings, from 7.30 to 9.30, on sixty-five nights, during a period of twenty-two weeks.

The instruction in the mechanical trades, both theoretical and practical, is given in the building occupied in the daytime by the Rindge Manual Training School. The courses in millinery and dressmaking are given in the Putnam school, Roberts school, Shepard school and Webster school.

PROGRAMS OF STUDY.*Machine Shop Practice.*

The shop practice in metal work consists of lathe work and construction. The plan has been formed to add work in blue-print reading to the machine shop course, in order that all those taking the more practical courses may have some exercise in the reading of drawings.

Lathe Work. — Centering, squaring, turning (straight and taper); measuring by spring calipers (inside and outside) and micrometers; taper fit (lathe center); shrink fit with hole drilled (chuck drill), bored (lathe tool), reamed (hand reamer), and plug turned; eccentric centering and turning; thread cutting (R. H. and L. H., both V and square).

Construction. — Steel fillister head cap screws $\frac{5}{8}$ inch — 11 by 2 inches, involute gears (milling machine); face plate with threaded man-

drel, boring bars, etc., with work on disc grinder (shaper and drill press); double-spindle emery grinder (planer, milling machine and drill press); friction drive drill press.

Shop Mathematics.

The shop mathematics is divided into three sections: elementary, which takes up the first four rules of arithmetic and the simple reading of drawings; intermediate, which takes up fractions and advanced arithmetic, weights and measures, and the reading of more complex drawings; advanced, which takes up simple algebra and right-angle triangles, and the making and reading of drawings and third-angle projections.

Pattern Shop.

The pattern shop work takes up the explanation and use of tools, various forms of patterns and patterns for special forms of machines and machinery: small rectangle, small tee iron, simple turned pattern, one piece; split pattern and core box, balanced core; flange coupling, standard core prints, with half-core box, pasted core; built-up work, small patterns; built-up segment work, pulleys, etc.; patterns for drill press, with core boxes; patterns for emery grinder, base (lagged) and hood, with core boxes, table and rest; also hangers and pulleys for counter-shaft; lagged patterns for two-wheel emery grinder, core boxes, etc. (weight of base, 480 pounds); lagged patterns for disc grinder; patterns for revolving swage block for forge shop, also carriage for same; patterns for lathe chuck; patterns for 16-inch split pulleys; patterns for angle irons, drill vises, jigs and fixtures to carry on work on above machines in machine shop.

Mechanical Industrial Drawing.

The instruction in mechanical industrial drawing is divided into three sections: in the first are taken up drawing instruments, projections, the conventional signs and details of engines and boilers; in the second section are taken up inking of drawings, projections, making of working drawings from sketches, formulæ and models, machine designs and lettering; the third section takes up more complicated mechanical drawing and intricate details, and working drawings with specialization in structural iron work, laying out plants and machine designing.

First Year. — Care of instruments; geometrical problems; projections, intersections and developments; isometric lines and representations of different materials; cam construction, crank and eccentric; details of small tools, engine details and assembly, boiler details.

Second Year. — First term, class work: inking practice; plane ge-

ometry; mathematical curves; plane projection; conic sections; sketching from models; working drawings from sketches. Second term, individual work: working drawings from models and formulæ; elements of machine design; exercises in lettering during both terms.

Third Year. — First term, class work: inking practice; belts and pulleys; screws and springs; helical curves; gearing, involute, valve motion; Zeuner diagram. Second term, individual work: shadows; developments; sheet metal work; working drawings; machine design; engines, motors, etc.; laying out of power plant; structural iron work. (According to ability, students take one or more of the above.)

Architectural Drawing.

Architectural drawing is divided into four sections: in the first are taken up the use of instruments, projections and drawing of building details in various scales; the second section takes up the plans for a small house; the third section takes up original designs and their development into plans; the fourth section takes up perspective and wash drawings.

First Year. — Use of instruments; geometrical problems; projections and developments; isometric drawing; building details, 1½ inch to 1 foot and full size; floor framing details, section through sill, section of cornice, door and window details, porch and column details, girder, interior finish, stairs, etc.

Second Year. — Single cottage house, cost about \$5,000: basement plan; first-floor plan; second-floor plan; attic plan; four elevations; framing and details.

Third Year. — Original designs for a single or apartment house, and all drawings for the same.

Fourth Year. — Architectural perspective; wash and ink drawing.

Freehand Industrial Drawing.

The freehand industrial drawing is divided into three progressive sections. In each section practice is given in drawing from models, casts and other objects appropriate to the degree of advancement; the designing of useful and ornamental objects; lettering and decorative designing.

First Year. — Drawing from type models and common objects; drawing from casts of ornaments and plant forms; constructive designing of useful and ornamental objects; lettering; decorative designing.

Second Year. — Grouping and drawing from objects; drawing from casts of ornaments and parts of the human figure; designing for useful and ornamental objects; lettering; decorative designing; drawing from life.

Third Year. — Drawing from casts of the human head in several

positions; drawing from life; compositions of landscapes; designing of useful and ornamental objects; lettering; decorative designing.

The enrollment in the various classes is given in a table on page 71.

Chicopee Evening Industrial School.

In April, 1908, information was requested by the school authorities of Chicopee regarding the necessary steps to be taken in making application for the organization of an evening industrial school under the commission. It was stated that need had been felt for courses in joinery, wood turning, pattern making, machine shop practice, forging and mechanical drawing, but that instruction in other lines would also be required in the future.

Specific information was furnished the Chicopee school authorities regarding the courses being given in schools under the commission in other cities, to enable them to more fully understand the provisions which would be necessary in instituting similar courses.

In September, 1908, the school committee notified the commission that the board of aldermen had passed an order authorizing the school committee to organize an evening industrial school, and to appoint a board of trustees to establish such a school.

The following order was received by the commission from the city of Chicopee, and was taken under consideration at its meeting of Sept. 28, 1908:—

That an independent industrial school be and hereby is established, to be in charge of a board of trustees to be elected by the school committee, who shall provide and maintain such school for the instruction in the principles of agriculture and domestic and mechanic arts, as is permitted in chapter 505 of the Acts of 1906, and for evening courses in such subjects for the benefit of such persons already employed in trade; and if deemed expedient by the said trustees, for the instruction in part-time classes of children between the ages of fourteen and eighteen years who may be employed the remainder of the day. Such school shall be approved by the Commission on Industrial Education of the Commonwealth, as to location, courses and methods of instruction, before any money appropriated by the city for the maintenance of such school shall be expended, and all appropriations shall be ex-

pended with the approval of said commission. And the said board of trustees shall so conduct said school and do all things that may be necessary to entitle the city to be reimbursed by the Commonwealth the proportion of expense so incurred, in the manner and amount provided by law.

At a meeting of the school committee, held Oct. 7, 1908, a board of trustees for the evening industrial school was appointed, in accordance with the order passed by the board of aldermen. The trustees thus elected consist of the members of the school committee, and are as follows: Patrick E. Bowe, Herbert S. Martin, Rev. Collins G. Burnham, N. P. Ames Carter, Henry J. Boyd, John J. Barry, George H. Burnham, George H. T. Babbitt and Frank J. Shea.

The trustees elected Mr. N. P. Ames Carter chairman, and Mr. John C. Grey (superintendent of schools) secretary. The trustees voted at that meeting to open an industrial school as soon as possible, and elected Mr. John H. Sullivan director.

The evening industrial school was opened on October 29. Sessions are held from 7.15 P.M. to 9.15 P.M., on five nights a week. The following courses are given: pattern making; machine shop practice; and industrial drawing.

The equipment consists of twenty benches for carpentry, the necessary circular and band saws, drawing tables for a class of 20, and the machine shop, all in the same room. The machine shop has an equipment consisting of a Browne & Sharpe milling machine, shaper, grinding machine, speed lathes for wood turning, which can be used for hand metal turning, six machine lathes and hardening furnace. The apparatus composing the machine equipment is excellent, but it is necessarily limited in amount.

In the industrial drawing course there are two classes, elementary and advanced. In the machine shop work much latitude is allowed in the work undertaken, in order to permit the most advantageous use of the time by the individual pupils. It has been found necessary to divide the class into five sections, the pupils in each receiving instruction only one night a week. The pupils in the pattern making course average two or three nights a week.

The enrollment of the school is given in a table on page 71.

Lawrence Evening Industrial School.

There has been steadily developing during the past two years a strong feeling among the large employers of Lawrence, as well as among the employees, that the city with its great textile industries needs an industrial school.

In March, 1907, a public meeting to consider the question of industrial education was held in the rooms of the Lawrence Board of Trade; members of the city council, as well as representatives of the textile interests and of the Central Labor Union and a representative of the commission, attended.

The Board of Trade actively took up the consideration of the needs of the city in industrial schools, and authorized the president to appoint a committee to urge upon the city government that immediate and vigorous steps be taken to establish an industrial school in Lawrence.

This committee, acting in conjunction with a committee of the Central Labor Union, held a public meeting in city hall at the end of May, at which were present several members of the commission and its secretary.

The local committee recommended that an industrial school be established, to begin its sessions as near the beginning of the fall term of the public schools as possible; that appropriation be made of a sum ample to put into usable condition and to equip the available building; and that the special committee on this school be endowed, so far as the city council might legally do so, with such rights and powers as might be needful in the administration of its trust.

At a meeting of the Lawrence Textile Council, held in June, 1907, the report of the committee on industrial schools, which was in favor of establishing such a school, was heard and adopted by a unanimous vote.

In November of the same year the committee representing the Board of Trade, consisting of nine members, made an exhaustive report, which included a program of studies, which was endorsed by a unanimous vote.

At a joint session of the Lawrence city government, held in December, the report of the industrial school committee was presented. This report suggested the use of the Battery build-

ing on Haverhill and White streets, presented the course mentioned above, and asked for an appropriation. After listening to several speakers in favor of the proposition, it was unanimously voted to recommend an appropriation for an evening industrial school.

At a meeting of this commission, held March 16, 1908, it was voted that Dr. M. F. Sullivan, chairman, Mr. Walter H. Summersby, Mr. John B. Cameron, Mr. James P. Barnes and Mr. Augustine X. Dooley become the agents of the commission in the administration of the evening industrial school at Lawrence, with such authority as the commission may from time to time confer upon such agents.

It has been strongly felt that help would not be lacking from private sources in assisting in the equipment of special departments of industrial schools, when the needs became known. A forceful illustration of this generosity is found in the Lawrence industrial school, which, owing chiefly to the initiative of Principal Dooley of the school, has had presented or loaned to it many valuable pieces of machinery.

LIST OF EQUIPMENT DONATED OR LOANED TO THE LAWRENCE INDUSTRIAL SCHOOL.

Saco & Pettee Machine Shop, Saco, Me.: 1 complete set of cotton machinery, from picker to loom, including revolving flat cards, drawing frames, railway heads, slubbing, intermediate and roving frames, spinning frames, spoolers and reels.

Kitson Machine Shop, Lowell, Mass.: 1 combination finisher and feeder.

Easton-Burnham Machine Company, Pawtucket, R. I.: 1 upright spooler.

Entwistle Company, Lowell, Mass.: 1 beam warper with creel.

Metallic Drawing Roll Company, Indian Orchard, Mass.: rolls for drawing frames.

Draper & Co., Hopedale, Mass.: 1 spooler, 1 warper, 1 twister.

Lowell Machine Shops, Lowell, Mass.: complete set of worsted machinery, including 1 balling gill, cam gill box, revolving creel, 1 double gill box, 1 balling and finishing, 1 two-spindle gill, 1 two-spindle draw, 1 two-spindle weigh, 1 four-spindle first finisher, 1 four-spindle second finisher, 1 four-spindle speeder, 1 spinning frame, 1 twisting frame.

Crompton & Knowles Loom Works, Worcester, Mass.: 1 pattern loom, 1 gingham loom, 1 Jacquard, 1 comb.

Mayo Knitting Company, Laconia, N. H.: set of knitting machines.

Crane & Co., Lakeport, N. H.: 1 hosiery machine.

Westinghouse Electric and Manufacturing Company, Boston, Mass.: 1 five-horse power motor, 1 bedplate, 1 standard paper pulley 4 inches by $3\frac{3}{4}$ inches, 1 quick make spinning frame switch.

Bowdlear & Co., Boston, Mass.: waxes used in textile work.

Singer Sewing Machine Company, Lawrence, Mass.: 4 sewing machines.

R. H. Hood Company, Philadelphia, Pa.: 4 sets of fullers for gill boxes.

Rome Chemical Company: soaps, alkalies, etc., used for textile purposes.

E. Frank Lewis, Lawrence, Mass.: 100 samples of wool, with descriptions, from different parts of the world.

F. Jacques, Boston, Mass.: 40 samples of cotton, from different parts of the world.

Ludlow Manufacturing Company, Boston, Mass.: samples of hemp, flax, jute, etc.

Treat Hardware Company, Lawrence, Mass.: tools.

American Moistening Company, Lawrence, Mass.: set of humidifiers.

G. G. Jordan, Columbus, Ga.: pictures and samples of cotton.

Fairbanks Scale Company, Boston, Mass.: 1 1000-pound scale (cotton and woolen), 1 truck.

Watts Regulator Company, Lawrence, Mass.: valve reducer, damper regulator.

McKerrow & Co., Boston, Mass.: samples of distilled wool grease.

Burnham Mills Supplies Company, Lawrence, Mass.: cotton waste.

Brown Bros., Providence, R. I.: 1 twist counter.

Spalding Perkins Company, North Rochester, N. H.: 30 roving cans.

Standard Fibre Company, Somerville, Mass.: roving cans.

Brown & Sharpe Manufacturing Company, Providence, R. I.: 1 yarn reel, 1 roving scale.

Merrimac Boiler Company, Lawrence, Mass.: 1 horizontal boiler.

Gutterson & Gould, Lawrence, Mass.: 1 vertical boiler.

Bride & Grimes, Lawrence, Mass.: steam heating boiler, with all appendages.

Knowles Pump Works, Holyoke, Mass.: 1 pump.

Blake Pump Works, Cambridge, Mass.: 1 vertical pump.

Eagle Oil and Supply Company, Boston, Mass.: 1 \$15 clock.

Lunkenheimer & Co., Boston, Mass.: 1 regrinding globe valve, 1 regrinding globe valve, O. S. & Y. type, 1 twin check valve, 1 horizontal check valve, 1 wedge disc check valve, 1 double-disc gate valve, 1 pop safety valve, 1 blow-off safety-valve, 1 ball check valve, 1 O. S. & Y. gate valve (iron), $\frac{3}{4}$ -inch generator, No. 2 Paragon lubricator, 1 pint senior lubricator, $\frac{1}{2}$ -pint junior lubricator, 1 square-head steam stop valve, No. 1, $\frac{1}{2}$ sentinel cups, injectors, gage cocks, etc.

Atlantic Cotton Mills, Lawrence, Mass.: tank and other supplies.

Washington Mills, Lawrence, Mass.: 1 dressing frame.

Lawrence Gas and Electric Light Company: 3 motors, irons and ironing boards.

Kalle & Co., Boston, Mass.: cabinet of chemicals and dyestuffs.

Merrimac Chemical Company, Boston, Mass.: chemicals for the laboratory.

William Hartshorne, Arlington Mills, Lawrence, Mass.: 1 duplex pump, 2 engines.

Crosby Steam Gage and Valve Company, Boston, Mass.: 1 6¾-inch brass sectional Crosby gauge, 1 4-inch sectional standard valve, 1 water column.

Haynes & Derby, Boston, Mass.: 1 sectional injector, with blue prints.

Hancock Inspirator Company, New York, N. Y.: 1 inspirator.

City of Lawrence: 1 pump, 1 fan.

A. T. Stearns, Boston, Mass.: 1 large vat for dyeing.

Prentiss Vise Company, New York, N. Y.: 4 large vises.

Whitcomb Blaisdell Machine Company, Worcester, Mass.: tools.

Pike Manufacturing Company, Pike, N. H.: oil stones.

Whitman & Barnes Manufacturing Company, Chicago, Ill.: tools.

H. A. Metz & Co., Boston, Mass.: dyestuffs.

Atteaux & Co.: chemicals and dyestuffs.

North Bros., Philadelphia, Pa.: tools.

Billings & Spencer Company, Hartford, Conn.: tools.

McLanathan, Lawrence, Mass.: lot of belting.

Schieren Belting Company, Boston, Mass.: lot of belting.

Richmond Belting Company, Richmond, Va.: lot of belting.

Lawrence Bobbin & Shuttle Company, Lawrence, Mass.: bobbins, shuttles.

Emmons Harness Company, Lawrence, Mass.: harnesses.

Robinson Oil Company, Boston, Mass.: dynamo and machine oils.

Holtze, Cabot Company, Brookline, Mass.: electrical equipment, including motors, bells, annunciators, telephones and telephone supplies, etc.

Howe Scale Company, Boston, Mass.: 1 druggist balance.

Wyandotte Soda Company, Lowell, Mass.: 1 barrel of soda ash.

Buckley & Sullivan, Lawrence, Mass.: dressmaking supplies.

Reid & Hughes, Lawrence, Mass.: dressmaking supplies.

James Hunter Company, North Adams, Mass.: 1 fulling mill.

The Lawrence evening industrial school was established Jan. 20, 1908, and opened March 16. The spring term covered a period of ten weeks. The total enrollment was 589. On account of the large enrollment, each class was divided into sections, which met once a week. The courses and periods were as follows: —

Engine and boiler room arithmetic, sessions of two hours on Wednesday at 3.15, Tuesday and Thursday at 7.45.

Shop mathematics and blue-print reading, session of two hours on Wednesday at 7.45.

Steam engineering, session of two hours on Monday at 7.45.

Mill arithmetic, session of two hours on Wednesday at 7.45.

Designing, session of two hours on Tuesday and Thursday at 7.45.

Loom construction and calculation, session of two hours on Tuesday at 7.45.

Worsted weaving, sessions of two hours on Wednesday and Thursday at 7.45.

Steam engineering, laboratory practice, sessions of two hours on Thursday and Saturday at 3.15, and Monday, Tuesday, Wednesday, Thursday and Friday at 7.45.

The fall term of the Lawrence evening industrial school opened for boys and men on Oct. 19, 1908, and the classes in dressmaking for girls and women on October 28. There is an enrollment of 1,367, of whom 597 are girls and women.

It is not expected that the attendance will exceed 40 or 50 per cent. of the enrollment, because so many of the applicants for tuition have not had the necessary preliminary instruction to enable them to profit by the courses which may reasonably be given in such a school.

During the spring and summer of 1908 preparation for the fall school term has been pushed. Those teachers who were to give courses in the fall were occupied with the preparation of lecture notes, to be issued at the opening of the school to the pupils of the respective classes. The problems and drawings incorporated in the notes were such as came directly from the shop, or were suggested by actual shop practice, thus the school is enabled to keep in closest touch with the industries. The instructors are practical men, working in the industries and conversant with the needs of the operatives.

An important feature of the preparation for the school work has been the accumulation of the large amount of woolen, worsted, cotton, knitting and steam machinery already referred to. The machinery thus brought together is valued at upwards of \$35,000. The housing and erecting of this machinery has laid claim to much of the time of the principal of the school.

COURSES OF STUDY, FALL TERM, 1908.

SUBJECT.	Location.	Evenings at 7.30.
Woolen and worsted spinning, .	Library hall and old high school building.	Monday and Wednesday.
Woolen and worsted weaving, .	Loomfixers hall, basement,	Wednesday.
Dobby and Jacquard weaving, .	Loomfixers hall, basement,	Thursday.
Cotton spinning,	Battery building and old high school building.	Tuesday and Thursday.
Cotton weaving and loomfixing,	Battery building and old high school building.	Tuesday and Thursday.
Textile designing (advanced), .	Battery building, . . .	Thursday.
Textile designing (elementary),	Battery building, . . .	Monday and Tuesday.
Cloth calculations (advanced), .	Battery building, . . .	Monday.
Cloth calculations (elementary),	Battery building, . . .	Thursday.
Industrial and commercial elec- tricity.	Library hall,	Thursday.
Industrial a n d commercial chemistry.	Working Men's College, .	Tuesday and Thursday.
Practical a n d experimental dyeing.	Working Men's College, .	Monday and Friday.
Steam engineering for firemen employed days.	Battery building, . . .	Monday and Tuesday, Wednesday and Thursday.
Steam engineering for engineers,	Library hall,	Friday.
Mill arithmetic and mill book- keeping.	Loomfixers hall, . . .	Wednesday.
Shop arithmetic,	Battery building, . . .	Monday and Wednesday.
Blue-print reading and arith- metic for machinists.	Battery building, . . .	Tuesday and Thursday.
Loomfixing and calculations, .	Loomfixers hall, basement, and old high school building.	Tuesday evening and Sat- urday afternoon.
Arithmetic for firemen and en- gineers.	Battery building, . . .	Tuesday, Wednesday and Thursday.
Steam engineering for men em- ployed nights.	Battery building, . . .	Wednesday afternoon, at 2.45.
Arithmetic for men employed nights.	Battery building, . . .	Thursday afternoon, at 2.45.
Dressmaking, {	Library hall,	Monday, Wednesday, Thurs- day.
	Old high school, . . .	Tuesday, Friday, Saturday evenings, one night a week for each section.

The enrollment in the various courses is given in a table on page 72.

The courses in woolen and worsted manufacturing are arranged to meet the daily needs of those working in these industries. Instruction is given in all the various processes employed in converting the wool fiber into cloth, namely, sorting, carding, combing, scouring, spinning, designing, weaving, dyeing and finishing.

The cotton courses are designed to meet the needs of the men working in these industries, to make better workers of them, and to broaden their thought and thus cause them to take

a greater interest in their work. Instruction is given in all the various processes, — picking, carding, drawing, roving, spinning, combing, designing and weaving. In connection with this work a course in knitting is offered. The equipment of the department is of the best up-to-date cotton machinery.

The work of the experimental laboratory, dye house and industrial chemical laboratory is carried on in a building well located for a dye house. It is situated on the banks of the Merrimac, just above the falls, and is modelled after one of the most practical experimental laboratories in the country.

Besides lectures and recitations on dyeing, students will perform careful and systematic experiments to determine the nature of the various dyestuffs and mordants, their coloring properties, their action under various circumstances, and conditions under which they give the best results. The more representative dyestuffs of each class will be applied to cotton, wool and silk, and each student will be obliged to enter in an especially arranged sample book a specimen of each of his dye trials, with full particulars as to conditions of experiment, percentage of compounds used, time, temperature of dye bath, etc.

For convenience and economy, most of the dye trials will be made upon small skeins or swatches of the required material; but from time to time students will be required to dye larger quantities in full-sized dyeing machines, under the conditions of a commercial dye house.

By the use of a small printing machine the principles of calico printing are illustrated, and the practical side of the subject is studied with dyeing machines, vats, etc. It will be the constant endeavor of those in charge to impart such information of a theoretical character as will be of value in the operations of a dye house.

In industrial chemistry particular attention is paid to those subjects which are of special interest to the textile worker, such as oils, soaps, gas, coal tar and the common acids and alkalies. Bleaching powder, various dyestuffs, chemicals and by-products of wool grease are on exhibition in the dye house, and students have an opportunity to study them.

The course in steam engineering consists of lectures by prac-

tical men who are specialists in their respective branches, arithmetic and practical mathematics for engineers and firemen, etc., and laboratory practice in steam engineering. The steam engineering laboratory has an equipment consisting of different types of boilers, steam-heating apparatus, different pumps in sections, sectional valves and gauges, all the boiler accessories, steam engines, generator and various other machines. Pictures, blue prints and sketches of the above apparatus and other machines are on the wall for reference.

Natick Evening Industrial School.

During the year 1907 considerable interest was aroused among some of the public-spirited citizens of Natick in the subject of industrial education.

At the meeting of the commission, on Sept. 28, 1908, an order was read from the Natick school committee, requesting the commission to establish an evening industrial school in Natick. After discussion, the commission then voted: to establish one or more evening industrial schools in the town of Natick, as requested by the school committee of the said town in the foregoing order, and the school committee of Natick are hereby appointed the agents of the commission in the conduct and maintenance of said schools.

The school was opened in October, 1908, with two courses, — dressmaking and cooking.

The course in dressmaking is to cover twelve weeks, three nights a week, Monday, Wednesday and Friday, and is conducted in the high school building. The number in the class was limited to 25, owing to the small equipment, and the fact that one teacher is employed. Since more applications were received than could be accommodated, there is a waiting list. A deposit of \$1 is required, but it is to be returned if the attendance record reaches 80 per cent. for the course. The equipment includes work tables for the members of the class, and two sewing machines. The pupils are of various nationalities, Americans, Germans, Irish and French, the majority being employed during the day.

The course in cooking is to be conducted for a term of fifteen weeks in the Cochituate building, where the manual training

department is located. The number of pupils is limited to 60, and, as in the case of the dressmaking class, there is a waiting list. The class is divided into three sections of 20 each, this being the limit for the equipment, and all that the one teacher can supervise. Sessions are held on Monday, Wednesday and Friday evenings, and each pupil is in attendance but one night a week. The instruction is given in a room especially fitted for such teaching. The equipment consists of five work tables, accommodating 4 pupils each, each table having two gas burners and a general cooking equipment. There are, in addition, a center table for supplies, a coal range, a gas range and oven, a filing cabinet for recipes, a sink fully equipped with five different sets of sink supplies, closet, pantries, etc.

The course covers the care of the kitchen generally, care of the dining room and service, in addition to plain cooking from recipes for an economical household. The pupils are provided with printed copies of the recipes used, and they are required to paste them in their note books, and they form, together with the notes taken separately, a practical cookbook for those who are taking the course. Most of the pupils are employed during the day.

The enrollment in the various classes is given in a table on page 72.

New Bedford Evening Industrial School.

The provisions of the State industrial school law were early brought to the attention of the school authorities of New Bedford. At a meeting of the school board, held in October, 1907, it was voted to communicate with the commission regarding the establishment of evening industrial schools.

Early in November, 1907, the school committee formally requested the commission to establish an evening industrial school in that city. Upon careful consideration of the location, courses and methods of instruction in the proposed school, the commission approved the establishment of the school, and appointed the school committee of New Bedford as agents of the commission for the purpose of exercising such local control as is authorized by chapter 505 of the Acts of 1906.

The New Bedford evening industrial school was opened on Nov. 27, 1907, and the spring term closed Feb. 5, 1908.

The school evenings were Monday, Tuesday, Wednesday and Thursday, the separate courses being given one evening each week for ten weeks. The instruction was given in the high school building. The following courses were given: elementary laboratory work; lectures on electricity; advanced laboratory work; commercial dynamo work; gasoline engines; electrical arithmetic.

The fall term of the evening industrial school at New Bedford for 1908 began on October 19, instruction being given on Monday, Tuesday, Wednesday and Thursday evenings, the classes being in session from 7.30 to 9.30. The courses given during the fall term are the following: —

ELECTRICAL COURSES.

Course 1a. — Lectures on the principles and theory of electricity, with special reference to practical applications. In the high school on Monday nights.

Electric currents, preliminary notions of presence of a current, of quantity and direction; resistance and electro-motive force; Ohm's law in its practical applications; elements of magnetism, laws of electro-magnetism, laws of induction, applications.

Magnetic generators, theory of direct and alternating current machines; polyphase machines, motors, generators, static transformers, etc.; commercial applications, lighting, power circuits, street railway circuit, telephony, etc.

Chemical generators, commercial types; storage cells, theory, operation, commercial uses; maintenance of storage plants; simple problems in electrical calculations, wire sizes, horse-power, etc.

The general object of the course will be to familiarize men who already know somewhat of the practical end of electrical work with the fundamental principles upon which this occupation rests; also, to enable those who may be interested in the subject to acquire some knowledge of the commoner commercial applications of electrical science in the business world of to-day.

Course 1b. — It has been felt that while the lectures were useful, their value would be greatly increased if an opportunity were given for students to meet the instructor in an informal way for discussion and possibly for some definite book work. This course is offered to meet this need. While it is designed chiefly for students in the lecture course, it is open to any one, regardless of what other work he may be doing.

Course 1c. — Laboratory work in the elements of electricity. This course offers an opportunity for the individual performance of a

series of experiments, illustrating the principles of electricity, together with some of its applications. If desirable, the outline may be modified to suit the requirements of any student.

1. Study of the laws of magnetism. 2. The laws of electro-magnetism. 3. The chemical generator. 4. Electro-motive force. 5. Electro-chemistry and the storage cell. 6. Study of the dynamo; connecting up in series, shunt and compound and study of conditions affecting each. 7. Conditions affecting resistance. 8. Connecting conductors in series and parallel. 9. Study of alternating currents, single and two-phase, connecting up transformer circuits and the induction motor, with model apparatus. 10. Study of construction and operation of motors. 11. Study of construction and reading of commercial instruments. 12. Measurement of resistance.

COURSES ON HEAT AND POWER.

Course 2a. — Lectures on the principles of heat, with special regard to their application in power work, together with some discussion of the laws of gases, atmospheric pressure and strength of materials; the solution of some typical problem dealing with the above subjects.

Some subjects treated are: heat defined; methods of production; temperature; thermometers; heat quantity; units. Laws of heat distribution; conductors and insulators; applications. Expansion: coefficient; solution of typical problems. Physical form as affected by change of heat energy content; latent heat; problems. Heat engines: hot-air engines; internal combustion motors; theory, types, conditions affecting efficiency. Construction and function of parts. Steam engines; general laws of the conversion of heat energy into mechanical motion. Power formulæ: applications; problems. Atmospheric pressure: laws, applications; problems; pumps; condensers. Laws of gases: Boyle's law; Charles' law; applications; problems. Strength of materials: elasticity, tensile strength; applications; problems. The general problems of the utilization of energy.

Course 2b. — Discussions of the applications of heat. As in Course 2a in electricity, this course is intended to give an opportunity for a more informal discussion than can be obtained in the lectures.

Course 2c. — Laboratory work in the elements of heat. This course offers an opportunity for the individual performance of a series of experiments illustrating the principles of heat, together with some of the applications. If desirable, the outline given may be modified to suit the requirements of any individual student.

1. Heat measurement and the laws of exchange. 2. Measurement of the co-efficient of expansion. 3. Measurement of the value of the latent heat of fusion. 4. Measurement of the value of the latent heat of evaporation at atmospheric pressure. 5. The relation of pressure to boiling point. 6. The determination of specific heat. 7. The study

of the laws of conduction. 8. The determination of horse-power. 9. Study of a valve engine. 10. Study of atmospheric pressure. 11. Study of friction. 12. Tensile strength and elasticity.

Practical Work on Gas Engines.

Course 2d. — Ten exercises on gas engines of stationary and marine types. This course consists largely of practical work on the various types of engines, with informal explanation of the proper method of connection, operation and location of "trouble." The theory of the gas engine will be taken up in the lectures on heat, and the electrical portion will be considered in the electrical lectures. Pupils in this course are admitted without special enrollment to such lectures in either course as may deal with these subjects.

The equipment consists of nine engines of from 1 to 8 horse-power; single and multicylinder; two and three port; two stroke and four stroke. These engines are installed and in running condition.

Courses in Mathematics.

Course 3a. — Elements of mathematics. The object of this course is to give a working knowledge of mathematical ideas that are of especial value to apprentices, journeymen, machinists, and men engaged in building and manufacturing trades. The work includes problems in daily shop work, involving the following topics: —

1. Review of fundamental operations, decimals, fractions, ratio and percentage, with reference to shop work calculations.
2. Formulæ: their meaning, uses, evaluation and application to practical work.
3. Rules, formulæ and relations involved in areas and volumes of common forms and figures.
4. Use of squared paper; plotting and reading curves, equations of curves, areas.
5. Geometrical proportion; relations of similar figures.
6. Elements of the properties of angles.
7. Projection and development of points and lines in co-ordinate planes and of surfaces of simple solids.
8. Some laws of simple machines.

Classes for Women.

Course 4a. — Making children's clothing. This course includes lessons in cutting and making infants' outfits, children's dresses and other garments; drafting and cutting by pattern; mending, remodelling, utilization of materials at hand, darning and care of garments.

Suggestions are made with regard to selection of suitable materials, how to buy to best advantage, and how to make proper selection of material for different uses. Some attention is also paid to economy in selection of dress material, suitable fabrics and desirable color selections.

Course 4b. — Cooking and food economy. The make-up of foods and their use by the body; economy in buying supplies; the laws of

cooking (temperature, time, etc.); fermentation, moulds, sterilization; proper care of food; the preparation and serving of some dishes to illustrate the above facts; proper care of kitchen utensils. This course may be changed to meet the special needs of students.

Course in Chemistry.

Course 5a. — Lectures on the chemistry of the elements entering into the practice of the engine room and the power plant:

1. Chemical and physical changes; elements and compounds; laws of chemical action, symbols, equations; reading equations. 2. Oxygen: its properties, oxides, combustion, heat values. 3. Hydrogen: properties, compounds; magnesium and calcium. 4. Carbon: properties, compounds. 5. Solution; soluble and insoluble compounds; crystallization. 6. Iron and steel: chemistry; preparation. 7. The sulphates: carbonates, chlorides, characteristics. 8. Silicon and its compounds; cements, mortars. 9. The elements of gas analysis. 10. The common acids and their salts. 11. Electro-chemistry.

Course in Wood Working

Course 6a. — Lessons in the elements of wood working. Outline: short talks relating to tools used in wood working; construction, price and proper care. Facts relating to lumber: texture, strength, shrinkage and care of the seasoning; its adaptability to domestic use, furniture and building. Practice in cutting lumber from rough boards and preparing it for use. Practice in the making of the joints used in construction work: end lap joints, middle lap joints, dado and miter joints, end mortise and tenon, closed and relished mortise and tenon, sash coping, making miter box, use of steel square. Fastening processes: nailing, screws, glue, use of wedges and draw boring.

The enrollment in the various classes is given in a table on page 72.

Pittsfield Evening Industrial School.

The question of industrial schools in Pittsfield, which the commission took up actively in the fall of 1906, has been before the city government in one form or another for two years. It reached the school board early in 1907, in the form of a petition from the Central Labor Union, and the subject was referred to a special committee which held several hearings.

A permanent standing committee on industrial schools was added to the list of committees of the school board, the industrial school committee for the year 1908 consisting of C. H. Dickson, chairman, H. A. Francis and Geo. A. Prediger. This

committee recommended the establishment of an evening industrial school in Pittsfield.

The Pittsfield evening industrial school opened on October 26, in the high school building. The school sessions are held for two hours on Monday, Wednesday and Friday evenings. The courses are as follows:—

Carpentry and woodworking, as applied to the building trades. This course includes the elements of architectural or builders' drawing, the study of plans and blue prints and the use of tools and materials.

Industrial mathematics, with particular reference to their application and use in the local trades.

Mechanical drawing. This course is made very practical, and special attention is given to sketch drawings and the study and interpretation of drawings.

There is a total enrollment of 38 pupils. The enrollment is made up of men from a great variety of trades, and the ages vary from fourteen to forty-four years. The occupations represented among the pupils are: stationary engineer; tool maker; electrical worker; machinist; boiler maker; worker in concrete; pattern maker; clerk; winder; wireman; carpenter; draftsman; electrical tester; wool dresser; and laborer. The average age at which these men left school was about fifteen years.

The enrollment in the various classes is given in a table on page 73.

Taunton Evening Industrial School.

In November, 1907, a conference was held at the office of the commission with the superintendent of schools at Taunton, to discuss the establishment of an industrial school.

Early in December a petition for instruction in clay modeling, signed by 35 employees in the silverware industry, was received by the school committee. On Dec. 2, 1907, the Taunton school committee voted to request the Massachusetts Commission on Industrial Education to establish an evening industrial school through this committee. After an inspection of the facilities offered, the commission voted, on Dec. 23, to establish the evening industrial school requested by the school committee

of Taunton, and appointed the school committee of Taunton as its local agents.

On Jan. 1, 1908, classes were organized in clay modeling and dressmaking. The instruction began January 6 and ended March 31. The session was planned to cover a period of twelve weeks. There was organized one class in clay modeling and two in dressmaking. The class in clay modeling and one class in dressmaking were held on Tuesday and Thursday evenings; the second class in dressmaking was held on Monday and Friday evenings. The hours of session were from 7.30 to 9.30.

The work in clay modeling consisted in modeling from plaster casts, from shaded drawings, from blocked-out drawings and from line drawings. Casts in plaster were taken from some of the best samples of student's work.

The instruction in dressmaking included work on aprons, shirt waists, skirts and simple suits. All work was done from paper patterns. The instruction in sewing included both hand and machine sewing. Especial attention was given to encouraging pupils to take up with confidence work by themselves, and to aiding them in selection of materials, colors and styles.

In the fall of 1908 the sessions of the evening industrial school at Taunton opened in the first week of October with the following courses: clay modeling; sewing.

The instruction in clay modeling is given on Tuesday and Thursday nights, and is to continue for twelve weeks. The instruction is carried on as in the previous school year. The class in sewing is divided into two sections, one which meets on Monday and Wednesday evenings and the other on Tuesday and Thursday evenings. The scope of instruction is practically the same as that given in the sewing classes in the spring term.

The enrollment in the various classes is given in a table on page 73.

Waltham Evening Industrial School.

Definite interest in a local industrial school began to be manifested in Waltham in the spring of 1907. At the beginning of May the Waltham Business Men's Association, at the suggestion of the school department, invited representatives of the commission to attend their regular meeting on May 22, to explain the work of the commission.

Subsequently several conferences were held between the mayor, the superintendent of schools and others interested in the movement for an industrial school.

On the evening of October 15, representatives of the commission held a conference with the committee on manual training, the superintendent of schools and the mayor; and later in the evening a conference was held with more than 100 men then employed in the various trades in Waltham. As a result of this meeting, 100 candidates expressed a desire to attend this school.

The recommendations of the sub-committee for the establishment of an industrial school were adopted by the proper school and city authorities, and an appropriation was made for conducting the school.

The Waltham evening industrial school was opened Dec. 9 and closed April 10, 1908, the school year consisting of eighteen weeks. The school was in session on Monday, Wednesday and Friday evenings, from 7.30 to 9.30. Courses were given in industrial drawing, shop mathematics and machine shop practice.

The course in shop mathematics was given in the high school building, the others in the manual training school.

The following is the program of study: —

Industrial Drawing. — Use of instruments; lines and lettering; projection: conception, need of second and third plans, arrangement of views; simple machine details; drawing from formulæ; simple assembly drawing; complete set, details and assembly for power pump, steam engine or similar mechanism.

Shop Mathematics. — Ratio and proportion; calculation of speed of machinery; speed of cutting tools; screw threads and thread cutting; common fractions; use of measuring instruments, including the micrometer; decimal fractions; squares and square root; mensuration; use of formulæ; calculation of horse-power; principles of steam engine and other prime movers; principles of the electric motor.

Machine Shop Practice. — Centering and squaring up; straight, taper and eccentric turning and fitting; shrink fit; screw cutting and tapping; drilling and reaming; jig and accurate drilling; planing; hand turning; chipping cast iron and steel; filing, rough and finish; filing to a fit.

The fall term opened October 5, and the following courses are being given: machine shop practice; shop mathematics; machine industrial drawing. The courses do not differ materially from those given in the spring term, either in subjects or scope.

The sessions are held Monday, Wednesday and Friday nights, from 7.30 to 9.30, one night per week for each course.

Instead of all the pupils taking all three courses, as in 1907-08, a choice is permitted of any two.

During the first year of the school drawing instruments and certain shop tools were supplied to the pupils, but with the opening of the fall term the plan was adopted of requiring the pupils to furnish them.

The enrollment in the various classes is given in a table on page 73.

Tabular Statement of the Industrial Courses given in the Schools under the Commission. — These schools are evening industrial schools, except when otherwise indicated. The following table gives the date of establishment of each industrial school, the courses being given in these schools in the cities and towns mentioned, and the enrollment, average attendance and date of closing and opening the school in the spring and fall terms of 1908. That part of the school year before the Christmas recess is for convenience referred to as the fall term, and the part after the recess as the spring term.

Place.	Date of Establishment of the Industrial School.	Courses.	Spring Term, 1908.				Fall Term, 1908.			Number of Weeks in School Year.	Number of Nights per Week for Each Pupil.
			Enrollment.	Average Attendance.	School closed.		School opened.	Enrollment.	Average Attendance.		
Lawrence.	Jan. 20, 1908.	Woolen and worsted spinning and weaving; Dobby and Jacquard weaving. Cotton spinning.	70	16	May 23.		Oct. 19.	207	135	-	2
			-	-	-		-	36	31	-	1
			37	29	-		-	40	35	-	1
			-	-	-		-	145	74	-	1
			-	-	-		-	18	15	-	2
			-	-	-		-	25	19	-	2
			350	185	-		-	206	130	-	1
			35	19	-		-	40	36	-	1
			64	28	-		-	25	19	-	1
			7	25	-		-	58	43	-	1
			33	18	-		-	126	84	-	1
			-	-	-		-	45	35	-	1
			-	-	-		-	597	287	-	1
Montague (day school).	June 30, 1908.	Agricultural school (for list of subjects, see pages 30, 31, 32).	-	-	-		Sept. 7.	48	-	-	-
Natick.	Sept. 18, 1908.	Dressmaking. Cooking.	-	-	-		Oct. 12.	25	20	12	3
			-	-	-		-	60	57	-	1
New Bedford.	Nov. 4, 1907.	Electricity. Heat and power. Gas engines. Shop mathematics. Clothing economics. Food economics. Chemistry. Woodworking.	52	32	Feb. 5.		Oct. 19.	16	10	10	3
			34	26	-		-	19	15	-	3
			4	3	-		-	16	15	-	1
			-	-	-		-	22	17	-	2
			-	-	-		-	22	21	-	1
			-	-	-		-	28	23	-	1
			-	-	-		-	10	-	-	2

	Mar. 15, 1907,	Mechanical course, memorizing courses <i>(see pages 40, 41).</i>	-	-	-	Oct. 1.	84	-	-	-
Pittsfield,	Nov. 5, 1906,	*Industrial drawing. Industrial mathematics, Practical carpentry.	-	-	-	Oct. 28, - -	28 15 5	22 8 4	18 -- -	3 3 3
Taunton,	Dec. 2, 1907,	Clay modeling. Dressmaking, .	32 70	22 46	Mar. 31, -	Oct. 1-7, -	19 58	14 40	12 -	2 W 2 W
Waltham,	Nov 20, 1907,	Shop Machi *Indus	53 53 53	45 45 45	Apr. 10, -	Oct. 5, -	14 10 15	7 9 14	18 -- -	3 i 3 i 3 i

Later, 2.

Progress towards the Establishment of Schools.

Progress has been made towards the establishment of day industrial schools in Foxborough, Lynn, New Bedford, Newton and Worcester, and towards an evening industrial school in Walpole.

Foxborough Day Industrial School.

The conditions pertaining to the establishment of an industrial school at Foxborough were presented to the commission on Sept. 25, 1908, by Dr. W. C. Crocker of the Foxborough school committee. It was felt that through a system of co-operation between the towns of Foxborough, Mansfield, Sharon and Wrentham a school might be established and maintained at Foxborough, which is connected with these towns by electric railway.

On request of the chairman of the school board of Foxborough, on Oct. 8, 1908, the secretary of the commission attended a meeting of some of the officials of Foxborough and the above-mentioned surrounding towns. At this meeting it was voted to request the chairman of the school board of each of these towns to appoint three citizens on a committee (the chairman of the school board and the superintendent of schools to be ex-officio members of this committee) for the purpose of studying local needs and conditions relating to the establishment of an independent industrial school.

Lynn Day Industrial School.

In the early part of 1907 a movement was started for the establishment of an industrial school in Lynn. The Board of Trade and other local associations, and the press, together with prominent individuals, enrolled themselves as serious workers in this movement.

An industrial committee of the Board of Trade was appointed, which held meetings for the purpose of obtaining information regarding the local needs for an industrial school, and the local sentiment towards such an undertaking. This committee consisted of A. T. Sampson, J. C. Bennett, John J. Heys, Thomas W. Gardiner and George B. Grant.

In April, 1908, a Lynn commission on industrial education was appointed by the city government to study the local conditions and local needs for an industrial school, and to make recommendations concerning the establishment of such a school in co-operation with the State Commission on Industrial Education. This committee consisted of the following: Charles H. Hastings, chairman, I. B. Armstrong, secretary, Joseph Caunt, R. S. Bauer, Rev. A. J. Teeling, Richard H. Rice, Albion Bartlett, Philip Emerson and Charles T. Murray.

The report of the Lynn commission was submitted to the State commission and approved on Nov. 27, 1908, and is given in Appendix B.

New Bedford Day Industrial School.

A special meeting of the New Bedford school board was held on the evening of Nov. 3, 1908, at which the secretary of the commission was present. At this meeting a communication was read from the city government, notifying the board of the passage of an order providing for the establishment of an independent industrial school, and authorizing the school board to appoint a board of trustees. The board elected Edgar B. Hammond, Frank R. Pease, William E. Jennings, Robert L. Baylies, Miss Betsey B. Winslow, Calvin T. Bosworth and William A. Thompson as a board of trustees of the new independent industrial day school for a period of one year.

Mr. Charles R. Allen, who is at present director of the evening industrial school, has been made principal of the new industrial school.

Newton Day Industrial School.

Various individuals and local organizations have taken an active interest in the question of an industrial school in Newton, and meetings and conferences have been held with the object in view of furthering the movement for such a school.

At a meeting of the board of aldermen of the city of Newton, on Dec. 28, 1908, it was ordered: —

That an independent industrial school for instruction in the principles of mechanic arts, under the provisions of the statutes of 1906, chapter 505, entitled "An Act to establish the Commission on In-

dustrial Education," and acts in amendment thereof and in addition thereto, be and hereby is provided and established, to be in charge of a board of trustees to be appointed by the school committee; the number of said board of trustees and the term of office of each member to be determined by the school committee, the said committee also to fill all vacancies as they may occur in said board of trustees; provided that the independent industrial school authorized in this order shall be approved as to location, courses and methods of instruction by the Commission on Industrial Education provided for in said act. Such school shall be so conducted and all things done that may be necessary to entitle the city to be reimbursed by the commonwealth the proportion of expense so incurred in the manner and amount provided by law.

This order was approved by the mayor on Dec. 30, 1908.

At the meeting of the board of aldermen, on Dec. 28, 1908, it was ordered: —

That the city treasurer be and hereby is authorized to receive money contributed for the establishment and maintenance of an independent industrial school, and to pay out the same on the orders of the board of trustees in control of said school.

This order was approved by the mayor on Dec. 30, 1908.

The board of trustees appointed to be in charge of the independent industrial school are: Benjamin S. Palmer, Frank A. Day, William J. Doherty, W. E. Parker, S. E. Howard, Fred H. Tucker and Matt. B. Jones. Mr. Merritt W. Haynes of Rochester, N. Y., has been elected to be in immediate charge of the school.

The school is to be opened on Feb. 1, 1909.

Worcester Day Industrial School.

Worcester, with its numerous diversified industries, requiring the highest technical training and mechanical skill, has been active in the matter of local industrial education as provided for by the State law, and has been in touch with the commission since its appointment. The movement for an independent industrial school in Worcester has progressed steadily, even if slowly.

The opportunities for industrial schools for Worcester have been from time to time presented to local organizations by

members of the commission and its temporary and permanent secretary. The influence of the Worcester Public Education Association, an organization for the creation of an interest in all matters which will tend to improve conditions in public education, has been strongly exerted for the cause of local industrial education; and it was through its action that a committee was appointed to prepare and present to the city council a petition asking for the appointment of a local board on industrial education, and to bring before the city council such information as might be of use in considering the question of the establishment of a local independent industrial school. This committee was composed of R. B. Fowler, Board of Trade; M. P. Higgins, Public Education Association; Chas. F. Marble, Metal Trades Association; J. R. Back, Mechanics Association; and G. I. Alden, president of the Public Education Association.

During the time that this committee was engaged in actively furthering a movement for an industrial school, a number of meetings were held in Worcester which were addressed by members of the State commission and its secretary. The committee, accompanied by nine representatives sent by the Mechanics Association, the Worcester Board of Trade and the Metal Trades Association, presented a petition requesting the city government of Worcester, —

To authorize the appointment, by His Honor the Mayor, of a local commission on industrial education, to consist of nine members, citizens of Worcester, who are known to be interested in industrial education and are familiar with the manufacturing mechanical needs of the city of Worcester, whose duty it shall be to confer with the State Commission on Industrial Education, and report to the Honorable City Council a plan with the estimates and details for an industrial school for boys and girls in Worcester; and in case a plan is adopted by the city, the said local commission, under the direction of the State Commission on Industrial Education, shall represent the city of Worcester in carrying out these plans.

RUFUS B. FOWLER,
MILTON P. HIGGINS,
JOHN R. BACK,
CHARLES F. MARBLE,
GEORGE I. ALDEN,
Committee.

We, the undersigned, residents of the city of Worcester, endorse the above petition, believing that under the new State law above referred to the conditions in Worcester are most favorable for the establishment of an industrial school that will be a great credit to the city and a vital benefit to the large number of those who must engage in industrial vocations.

The petition was signed by a large and representative list of business men, educators and workmen, also by many women interested in industrial education for boys and girls. It was favorably acted upon by the city council, and received the approval of the mayor.

At the beginning of April, 1907, the city council passed an order, as follows:—

Ordered, That the mayor be and hereby is authorized and instructed to appoint a commission, consisting of nine citizens of this city known to be interested in industrial education, to confer with the State Commission on Industrial Education relative to the establishment of an industrial school for boys and girls in this city. If, after such a conference and due investigation, said commission deem it advisable that such a school be established, that it be requested to report a plan, with estimates and details, to the city council.

In June, 1907, Mayor Duggan announced the names of the nine men appointed as members of a local commission to report on the establishment of an industrial school in Worcester. This commission was composed of educators, manufacturers and representatives of organized labor. The members were Milton P. Higgins, George I. Alden, Charles F. Marble, Cornelius J. Carmody, John P. Casey, O. W. Norcross, J. M. Buckley, John R. Back and Rufus B. Fowler.

This local commission has made a study of local needs, has held public meetings and private sessions at which various interests have been heard.

The State commission has co-operated with this local commission in an advisory capacity, and in rendering active assistance; and one of its members, Milton P. Higgins, a resident of Worcester, served as chairman of the local commission.

The Worcester commission after mature deliberation has prepared and submitted to the city government a report which

has received the approval of the State commission. A copy of this report will be found in Appendix A.

An ordinance has been passed creating a board of trustees, and the following-named men constitute this board: Milton P. Higgins, Cornelius J. Carmody, George I. Alden, John M. Buckley, John R. Back, John P. Casey, Charles R. Johnson, Charles F. Marble, Nicholas J. Skerrett, Levi L. Conant, George N. Jeppson, Louis H. Buckley and George F. Brooks.

Walpole Evening Industrial School.

At the request of the superintendent of schools, an agent of the commission visited the high school building in Walpole on December 9, and inspected the rooms and apparatus available for a proposed industrial school.

A vote was passed at a town meeting, held on December 11, "that the school committee be authorized to appoint a board of trustees, which shall have the authority to establish and maintain an evening industrial school, as provided for in chapter 572 of the Acts of 1908."

In accordance with this vote, the school committee have appointed Philip R. Allen, Patrick H. Mahoney and F. W. Kingman as the committee on the evening industrial school, and have requested this commission to appoint this committee as its trustees to co-operate in the management of the school.

The location for the school and the proposed courses and instructors were discussed with the local authorities. The high school building where the courses are to be given is practically new, and has all the modern conveniences for heating, lighting and ventilation. It is expected that the school will be put in operation early in January, 1909.

The proposed courses embrace domestic science and industrial drawing and associated mathematics.

It is proposed to give the course in domestic science in the physical and chemical laboratory, where gas stoves and kitchen supplies are to be installed.

The courses in mechanical and architectural drawing are to be given by instructors who are now employed in local industries, and the enrollment will consist of machinists and carpenters from these industries. In these courses there will be

taken up the interpretation of blue-prints and plans, including their related mathematics, rather than the development of skill in drafting.

General Investigations in Forty-five Cities and Towns, Concerning the Educational Plans of Pupils, Fourteen Years of Age and upwards, in the Sixth, Seventh, Eighth and Ninth Grades of Grammar Schools, in order to determine the Number of These Pupils likely to attend a Local Industrial School.

The commission felt the necessity of having information regarding the number of pupils now in the grammar grades of schools in the various cities of the commonwealth, who might become pupils in industrial schools during the years 1908 and 1909. As a basis for such statistical work, it was decided to make a canvass among the pupils of the sixth, seventh, eighth and ninth grades of the grammar schools in the cities and towns having over 10,000 population according to the last census. This was quickly and economically accomplished by the distribution of question cards, during the months of May and June, in the grades to which this inquiry pertained. The cards were distributed in the following cities: Adams, Attleborough,¹ Beverly,¹ Brockton,² Cambridge, Chicopee, Clinton, Everett,² Fall River, Fitchburg, Framingham, Gardner, Gloucester, Haverhill, Holyoke,² Hyde Park,¹ Lawrence,¹ Leominster, Lowell, Lynn, Malden, Marlborough, Medford, Melrose, Milford, New Bedford, Newburyport, Newton, North Adams, Northampton, Peabody,¹ Pittsfield, Quincy,¹ Revere, Salem, Somerville, Southbridge, Springfield, Taunton, Wakefield, Waltham, Watertown, Weymouth, Woburn and Worcester.

The questions on these cards requested information concerning the age of the pupil; the occupation of the father; the expectancy of graduation from the grammar school; and the expectancy of attendance upon school after graduation from the grammar school.

¹ In these cities the ninth grade is merged into the high school.

² In these cities the data were incomplete, and the results were not used in the general summary.

The main results of this investigation are given in Appendix C.

The total number of pupils in the sixth, seventh, eighth and ninth grades in the 36¹ cities and towns was as follows: sixth, 15,877; seventh, 13,502; eighth, 10,863; ninth, 9,058; total in all these grades, 49,300. (See Table I., Appendix C.)

The total drop in the number of pupils from the sixth to the ninth grades in these cities and towns was 6,819, and the average drop in per cent. is 42.9.

The total number of pupils in the sixth, seventh, eighth and ninth grades in these cities and towns who stated that they did not expect to graduate from the grammar school was 4,244.

The total number of pupils in the sixth, seventh, eighth and ninth grades in these cities and towns who stated that they expected to graduate from the grammar school, but would not attend the high school, was 6,958.

There were 11,202 pupils in the sixth, seventh, eighth and ninth grades in these cities and towns who stated that they expected to discontinue their education either during or at the expiration of their grammar school course; and, judging from the number of pupils who actually dropped out from grade to grade, these pupils knew fairly well the conditions they were facing, and were able to forecast their school future with considerable accuracy.

There were 38,098 pupils in the sixth, seventh, eighth and ninth grades of these cities who stated that they hoped to continue their education after the grammar school. Since these investigations as originally planned were carried on in the grammar schools only, no inquiries had been made in the high school; but when a tabulation of the results of the inquiry showed that the numbers who expected to enter the high school were very much greater than those who actually entered, it was found that accurate data on this point could be obtained only by carrying the inquiry into the high school itself. This was accordingly done for the first year of the high school in the cases of the four cities, Lawrence, Lynn, Springfield and Worcester.

¹ The corresponding data for the 6 cities and towns in which there is no ninth grade in the grammar school are given in Table II., Appendix C.

In determining the actual drop from the ninth grade to the first year in the high school the difference in the numerical enrollment was not taken, but a comparison was made of the two class registers, to see what names enrolled in the ninth grade reappeared in the register of the first year of the high school.

The actual drop from the ninth grade to the high school in the four cities is as follows: Lawrence,¹ a loss of 165 pupils, or 40 per cent.; Lynn, 168 pupils, or 35 per cent.; Springfield, 169 pupils, or 27 per cent.; and Worcester, 472 pupils, or 45 per cent.

The following are the expected drops and the per cent. drop from the ninth grade to the high school for the four cities: Lawrence,¹ 66 pupils, or 16 per cent. of those in the ninth grade; Lynn, 82 pupils, or 17 per cent.; Springfield, 41 pupils, or 7 per cent.; Worcester, 111 pupils, or 10 per cent. These results, put in tabular form, are as follows:—

CITIES.	Expected Drop in Per Cent.	Actual Drop in Per Cent.
Lawrence, ¹	16	40
Lynn,	17	35
Springfield,	7	27
Worcester,	10	45

¹ The eighth grade was used.

The total drop and the per cent. drop from the sixth grade to the first year in the high school in Lawrence, Lynn, Springfield and Worcester are as follows: Lawrence, 539 pupils, or 68.1 per cent.; Lynn, 612 pupils, or 66.5 per cent.; Springfield, 499 pupils, or 52.5 per cent.; and Worcester, 1,109 pupils, or 65.9 per cent.

The following table shows these results:—

CITIES.	Total Number of Pupils in the Sixth Grade.	DROP IN NUMBER OF PUPILS FROM THE SIXTH GRADE TO THE FIRST YEAR IN THE HIGH SCHOOL.		DROP IN THE NUMBER OF PUPILS FROM THE NINTH GRADE OF THE GRAM- MAR SCHOOL TO THE FIRST YEAR IN THE HIGH SCHOOL.	
		Total Drop.	Per Cent. Drop.	Total Drop.	Per Cent. Drop.
Lawrence, . . .	791	539	68.1	165 ¹	40 ¹
Lynn, . . .	919	612	66.5	168	35
Springfield, . . .	959	499	52.5	169	27
Worcester, . . .	1,682	1,109	65.9	472	45

¹ There are but eight grammar grades in Lawrence.

Special Investigations among the Parents of Pupils in the Sixth, Seventh, Eighth and Ninth Grades of Grammar Schools in Lawrence,¹ Lynn, Springfield and Worcester, to ascertain the Attitude of Parents towards Industrial Education.

During the summer of 1908, special agents were appointed in Lawrence, Lynn, Springfield and Worcester, to visit the homes of the children in the sixth, seventh, eighth and ninth grades, whose addresses had been obtained in the investigation made previously in June, through the school superintendents.

The object of the investigation was to ascertain the amount of interest of the parents or guardians of those children in the establishment of a local industrial school. Where the father had learned a trade, inquiries were also made concerning the manner of its acquirement.

In many cases there were other children of an industrial school age in the family, who had already left school; a report of these was also obtained.

The investigation was carried on as follows: a properly qualified special agent, resident in the town, was appointed in each of the cities to take charge of the local canvass to be made; each of these special agents had the assistance of several qualified residents of the town in making the home visits which were necessary to secure the desired information. The cities

¹ Sixth, seventh and eighth grades.

were divided into districts, and each canvasser was personally acquainted with the section covered by him.

All of the canvassing agents in each city were required to familiarize themselves with the policy of the commission, as already outlined, as well as with its work and with the general industrial educational conditions as presented in its publications. The agents were to explain to the people interviewed the type of school which might be established in their city, provided public sentiment seemed to warrant the establishment of such an institution; it was distinctly specified that they were to represent the commission only in the matter of explaining the type of school which might be established, and in securing answers to the set of questions, — other questions which might arise being referred to the commission.

The special investigations carried on in Lawrence, Lynn, Springfield and Worcester were not intended to furnish data for a comparison of conditions in these cities, but rather to give information which should bear directly on the local problems facing the commission in each city; consequently, the scope of the work in these towns varied with the recognized needs.

In Lawrence the question of a day school for textile workers is under active consideration, and special inquiries bearing on this were made among those present grammar school pupils whom it was expected would be most immediately benefited by such a school.

In Lynn, with its preponderance of shoe industries, and in which a day industrial shoe school is under active consideration, it was considered important to interview the parents of all those pupils in the upper grammar school grades where it was felt that there might be a possible enrollment in the day shoe school.

In Springfield, where a technical high school already exists, the investigation was confined strictly to those pupils who stated that they had no expectation of attending a high school.

In Worcester, with its varied industries, and with day industrial schools for both boys and girls under consideration, it was felt that the investigation should be of the widest scope, and that the parents of all the boys and girls in the upper grades of the grammar schools should be interviewed.

So that in Worcester the parents or guardians of all the

children in those grades were interviewed; in Lynn, the parents or guardians of all those children except in cases where it was already known that other plans had been made for the future of the children; and in Springfield and Lawrence, only the parents or guardians of those children, thirteen years of age and over, who had stated that they had no expectation of attending high school.

The main results of this investigation are given in Appendix D, and may be epitomized as follows:—

Lawrence.— There were 467 families included in the investigation; of these, 438, or 94 per cent., were favorable to the establishment of a local industrial school. These represented 824 children of an industrial school age; 46 per cent. were girls and 54 per cent. were boys.

Of the fathers in the families interviewed, 258 were engaged in occupations requiring technical skill (including the so-called trades); of these, 110, or 42 per cent., had learned their trade by serving apprenticeships; 136, or 53 per cent., had “picked up” their trades; and 12, or nearly 5 per cent., had been pupils in trade schools.

Five special agents were employed in the Lawrence investigation to obtain information as to the attitude of the parents of the pupils under consideration towards industrial education and the establishment of an industrial school in Lawrence. From these parents there was obtained a statement as to their desire for their children to secure an industrial education by becoming pupils in an industrial school, if such could be established.

About 500 parents were interviewed, the fathers being engaged in many different lines of work. To most of these people the high school is an institution outside of their lives and those of their children. Many of these parents were desirous of having their children learn some trade or prepare to enter some branch of the textile industry. Most of the parents realized that at the age of fourteen the child is too young to be thrown on his own resources, and that a school which would give the child, during the interval between the ages of fourteen and seventeen, a thoroughly practical education, followed by a special preparation for a particular vocation, would fill a general want.

As regards the courses of instruction desired, there was a

great diversity of opinion. Courses such as mechanical drawing and shop practice, together with chemistry, metals and metallurgy of steel, appeal strongly to fathers who are desirous of having their boys follow up the mechanical trades. A wool sorter, realizing how he had been handicapped, is only too glad to have his child attend a school which will teach the practical chemistry of fats, oils and soaps, and explain about mordants, dyes, etc. Courses which offered a general knowledge of the textile business especially appealed to those interested in mill work; chiefly such courses as will enable a worker to understand what he is doing at his particular machine, and will give him an intelligent knowledge of the processes that precede and follow the work upon which he is engaged.

It was found that a surprisingly large number of persons in Lawrence have been enrolled in correspondence courses, or have attended the Lowell Textile School. The inconveniences to which such persons have been subjected in their endeavors to obtain industrial instruction have made them strong supporters of the movement for an industrial school in their own city. In addition to the expressions of views of those persons interviewed, it should be stated that over 100 fathers have presented themselves at the Board of Trade rooms, and registered their names as desirous that their sons attend the industrial school, if it should be established.

The general opinion among the people interviewed and the city government is that there is an immediate need of an industrial day school in the city of Lawrence, to supply the educational wants of its industrial workers.

Lynn. — There were 2,164 families visited in this city; of this number, 2,069, or 96 per cent., were favorable to an industrial school. There were 3,301 children in these families; boys, 52 per cent.; girls, 48 per cent.

The heads of 1,340 families were skilled workers; 551, or 41 per cent., of whom acquired their trade by apprenticeship; 779, or 58 per cent., had "picked up" their training; and 10, or 1 per cent., have attended a trade school or private technical institution.

Eleven special agents were employed in the Lynn investigation to interview the parents of the children being considered;

and all of these agents were deeply interested in industrial education. In general, the policy pursued was to interview the fathers, and whenever possible both parents; for this reason, most of the work had to be done evenings. The plans tentatively adopted by the Lynn commission on industrial education for an industrial school were presented, and after they had been clearly grasped, parents of all sections and occupations gave their hearty approval of them. Only a few persons could be classed as indifferent, and but a scattering handful were recorded as opposed to the school when the canvass closed. Many persons expressed a desire that one or more of their children should attend such a school, others strongly favored the school, on the ground that it would meet the needs of many boys and girls, even if it did not meet their own children's needs. While many workmen had feared that a trade school was but a plan to benefit the manufacturers at the expense of their employees, yet the final consensus of opinion was that the kind of school planned by the Lynn commission would advance the industry so as to benefit all classes in that community.

An important feature of this investigation has been the value to the local commission, in formulating plans for a shoe trade school, of the opinions and suggestions gathered from parents, of whom many were manufacturers, foremen and workmen in the shoe factories.

While an occasional manufacturer was in favor of a short course of industrial instruction, with a view to producing workmen proficient in the use of some particular machine or in the work of some single department, yet most of the industrial leaders, as well as parents in general, were desirous that the proposed Lynn industrial school should offer a course long enough to give all-round instruction in both the theory and practical workings of the various branches of the shoe trade, with special and thorough training in some department elected by a pupil towards the close of the course. As the canvass progressed, two demands of parents deserving attention became clear: that the children be given a practical education, to fit them for entrance into a life occupation; and also that they be given as broad and thorough culture and preparation for good

citizenship as can be obtained while fitting for a trade. It was largely as a result of this canvass that the Lynn commission decided to recommend courses in household economics, cooking, dressmaking, etc.

The canvass revealed a general feeling of opposition to the private trades schools, which offer to prepare any adult for work as a machine operator in a few weeks' time, in return for a stated fee. Although these schools take in work on low-grade products, when they can secure it from manufacturers, yet as a rule they are unable to afford sufficient practice to prepare pupils to hold a position after it has once been secured. The almost universal testimony of those who had tried the so-called private trade schools was that results were disappointing. So general has been this experience that many persons were found to be prejudiced against any school bearing the name of trade school. On the other hand, it has caused many citizens of Lynn to offer their support for an industrial school with a full four years' course, giving thorough instruction.

Springfield. — Of the 501 families visited in Springfield, 456, or 91 per cent., favored an industrial school. A total of 788 children were represented in this investigation; 54 per cent. were boys and 46 per cent. were girls.

In 249 of the families interviewed, the fathers were engaged in occupations specified as trades; 136, or 55 per cent., of these had learned their trades through apprenticeships; the remaining 113, or 45 per cent., had "picked up" their trade.

Two special agents were employed in the Springfield investigation to interview the parents of the children; both of these agents were men identified with the educational interests of Springfield, and had come into relations with both pupils and parents; and, moreover, they had a knowledge of local conditions. In the majority of cases the mother only was interviewed; but in a few cases both parents were seen, and in general were in accord.

The fathers were employed in a great variety of callings, all the important trades being represented as well as many of the less skilled callings. The fathers were well distributed in these various trades and callings. It must be distinctly realized that

those who were interviewed were those who had not encouraged their children to endeavor, if possible, to get a high school education, and who consequently had little thought above a grammar school education.

It was strikingly significant that a large proportion of the parents of those children who were not going through the grammar school or were not going to school after leaving the grammar school were not trained in any skilled trade.

A fairly large percentage of those engaged in skilled trades had served apprenticeships in shops either in this country or abroad.

A small percentage of the persons interviewed stated that the children would be needed to help support the family in some kind of work, and consequently could not be spared to attend an industrial school. In a few cases, where the pupils either thought they would not attend school after graduating from the grammar school, or were uncertain on this point, the parents stated that they intended to send their children to one of the high schools.

There appeared to be very little interest in the part-time school suggestion; the idea being a new one to those interviewed, the advantages were not realized. The thought of a youth at work, and working only half the time, was evidently regarded with disfavor.

There was a great diversity in the proportions of those who would send their children to an industrial school, among the different callings. In general, the greater the skill demanded in the work of the father, the higher the percentage of those who desired an industrial training for their children. Thus, few of those in the peddling business wished their children to attend an industrial school, and the parents were anxious to have the children help them at as early an age as possible. The laborers showed little actual indifference, although many were doubtful about sending their children to an industrial school.

At the other extreme, the tool makers, tinsmiths and tailors were in the main desirous of sending their children to a vocational school.

In those cases where the support of the family devolved on the mother, about half would send their children to a vocational school if such were established.

In those trades in which the training must be largely obtained in actual shop practice, as, for instance, molders, the percentage of parents in favor of a vocational school education for their children was below that for other skilled trades.

While few persons interviewed were reported as at all enthusiastic about vocational education, yet few were indifferent, and there was almost no opposition to it. It may be said that in general "considerable interest" would express the condition in 90 per cent. of the persons interviewed. About 70 per cent. of the persons interviewed stated that they would probably send their children to an industrial school, if such were established.

Worcester. — There were 3,697 families visited in Worcester; 3,303, or 89 per cent., of whom favored the establishment of a trade school in that city. These families included 5,069 children, 51 per cent. of whom were boys and 49 per cent. girls.

Of these families, 1,791 fathers could be classed as having acquired a trade; 677, or 38 per cent., by apprenticeship; 1,097, or 61 per cent., had "picked up" their trade; and 17, or 1 per cent., had attended a foreign trade school or private technical institution.

The canvass of the parents of the children being considered in the Worcester investigation was carried on by six special agents, each of whom was well acquainted with the sections of the city in which he carried on his work. The claims of industrial education were presented to these parents by explaining to them the nature of the industrial school movement, as well as the benefit to be derived from an industrial school in Worcester. The canvassers were invariably well received.

The enthusiasm with which the proposition for an industrial school in Worcester was met is only partially indicated by the statistical returns. It is certain that whatever may have been the views of these parents at the beginning of this investigation regarding industrial education, at the close of it there was without question an almost unanimous desire for the establishment of a local industrial school. In general, it was the expe-

rience that the degree of enthusiasm in the parents' minds for such a school depended on the number of children in the family. Where there was but one child, even though the family was in the most moderate circumstances, there existed an intention to give that child a higher cultural education; at the same time, the view was expressed that the industrial school would be good for other people's children. However, where there were several children in the family the personal interest in the industrial school was strongly expressed; and it was recognized that such a school would be a great aid in the performance of parental duty towards some of the children, at least.

It was found that, although the report of the local commission on an industrial school for Worcester had been printed in the local newspapers, it had not been generally read. The questions most frequently asked by persons interviewed were: Would the school be free? and, How thoroughly was it intended to teach a trade in this school? Invariably, satisfaction was expressed that no private interests could have any control over the school; also, that it was intended that every pupil should receive a thorough grounding for a trade before being graduated.

There was found to be a realization of the fact that successful shops are organized as profit-making establishments, and that in them the duty of instructing apprentices devolves on foremen, few of whom have either the desire, ability or incentive to teach trades to boys, such teaching being very different from the executive work demanded of a shop foreman. It was also felt that children attending an industrial school would have an advantage over those working in a shop, in being kept away from the influence of shop life at so young an age.

It was learned that there were many children, below the age limit adopted in this investigation, whose parents expressed the wish to have them attend an industrial school when they arrived at the proper age.

NATIONAL MOVEMENT FOR INDUSTRIAL EDUCATION.

Meeting of the National Society for the Promotion of Industrial Education, at Atlanta, Ga.

The commission was asked at a late day to send material to the exhibition held in Atlanta, on November 19, 20, and 21, in connection with the second annual meeting of the National Society. Accordingly an exhibit was prepared.

In detail the exhibit consisted of three large framed panels, about 5 by 6 feet, two of them setting forth the legislation pertaining to the commission, as enacted in chapter 505, Acts of 1906, and chapter 572, Acts of 1908. The third panel gave the names of cities and towns in which industrial schools had already been established by the commission, together with their total number of pupils and a list of the various courses of study offered. These panels were supplemented by sixteen framed photographs, showing classes and work rooms in several of the representative schools, together with a large framed picture of the Smith's Agricultural School and Northampton School of Technology.

The invitation to be represented in the exhibition was received too late, however, to permit the preparation of an exhibition of the products of the schools operated under the supervision of the commission.

Governor Guild appointed as delegates from Massachusetts to this meeting of the National Society the following persons: Paul H. Hanus, Frederick P. Fish, Charles H. Morse, Miss Florence M. Marshall and Rufus W. Stimson.

Massachusetts State Branch of the National Society for the Promotion of Industrial Education.

The Massachusetts State Branch of the National Society for the Promotion of Industrial Education has been organized during the year; Mr. Frederick P. Fish of Boston is chairman, and Mr. A. G. Bookwalter of Boston is secretary.

This State branch takes the place of the former State committee of the National Society for the Promotion of Industrial Education.

LEGISLATION ON INDUSTRIAL EDUCATION IN OTHER STATES.

The most marked feature of the development of the interest in industrial education in other States of this country during the past year has been the increased interest taken in the movement on the part of various State-governing bodies. This commission has been called upon to furnish information regarding its work, both as to scope and methods used in developing its lines of action, to governors, State committees, and State, civic and special educational boards.

The promotion of industrial education under State auspices in the United States is being accomplished in several ways: by the enactment of State laws providing for industrial schools; by the establishment of industrial schools by cities, through the independent action of city governments; encouragement of the movement by the work of the National Society for the Promotion of Industrial education, its State committees and State branches; and by the establishment and work of local committees in districts and towns.

A brief statement of the movements for the enactment of State laws authorizing industrial schools in various States is given in the following pages. Copies of the State laws are given in Appendix G.

Connecticut.

The early interest of Connecticut in State-authorized industrial education is shown by the approval, on June 3, 1903, of an act which runs as follows: —

Resolved by this Assembly: SECTION 1. That the governor be and is hereby directed to appoint a commission consisting of three persons, whose duty it shall be to investigate practical means and methods of industrial and technical education.

SECTION 2. Said commission shall, on or before February first, nineteen hundred and six, report to the general assembly at its session to be held in nineteen hundred and five, and shall make such recommendations for legislation as it may deem wise.

SECTION 3. No member of said commission shall receive any compensation for services as such member, but the commission may expend a sum not exceeding five hundred dollars for incidental and necessary

expenses incurred in the discharge of its duties, and said sum shall be paid by the treasurer upon the order of the comptroller, with whom the commission shall file proper receipts and vouchers.

The report of this commission was presented to the General Assembly of 1905, but by vote this report was continued to the General Assembly of 1907, so that when the report of the Connecticut commission was accepted in its final form, the work of the Massachusetts Commission on Industrial Education was well under way.

In January, 1907, Senator Luther, president of Trinity College, introduced a trade school bill in the Connecticut Legislature. This bill was thoroughly discussed in the press by various organizations, and a hearing was held before the committee on education on March 1, 1907.

On July 12, 1907, the appropriation committee presented a substitute bill. This bill, entitled "An Act concerning the establishment of free public schools for instruction in the principles and practices of trades," was enacted and became a law as chapter 250 of the Public Acts of 1907. This act is reproduced in full in Appendix G.

Georgia.

The Georgia Legislature of 1906 passed an act for the organization of 11 district agricultural schools. This act is given in full in Appendix G. In the spring of 1907 it was stated that the appropriation for these schools would amount to about \$3,000 for each school.

Maryland.

The Maryland Legislature of 1908 authorized the Governor to appoint a commission to recommend legislation on industrial education. This commission held its meeting of organization at Baltimore, on June 20. Dr. Richard Grady of Annapolis was appointed as permanent chairman, and Mr. Paul Edgar of Elkton was made secretary. The other members are Howard Melvin, John T. Foley and Larrie C. Quinn. The commission will make an inquiry into the whole subject of industrial education in Maryland, and make a report upon it. It will examine into the extent to which industrial education is carried on in Maryland and elsewhere.

Michigan.

In the Michigan Legislature of 1907 a bill to provide for the establishment of county schools of agriculture, manual training and domestic economy was enacted. In substance it authorizes the board of supervisors of any county to appropriate money for the organization, equipment and maintenance of a county school of agriculture and domestic economy. Two or more counties may unite in establishing such schools. Upon the decision of two-thirds of the board of supervisors to establish such a school, the question of establishment shall be put to the vote of the electors of the county.

A separate county school board of five members shall have control of the organization, equipment and maintenance of such schools. The county commissioner of schools is one of the members, and the other four are to be elected by the board of supervisors for one, two, three and four years, one old member dropping out and one new one being added each year. Where two or more counties combine, a portion of the board shall be selected from each county, and necessary levies of money shall be apportioned to each county in proportion to the assessed valuation.

The required courses of study include the soil, plant life and the animal life of the farm; farm accounts; manual training; and domestic economy. Not less than ten acres of land must be connected with the school for experiment and demonstration purposes. Tuition is free to inhabitants of the county or counties contributing to the support of the school. Provision is made for the classes for advanced students during the winter months. The superintendent of such a school must be a graduate of a State college of agriculture.

This act is given in full in Appendix G.

Mississippi.

The Mississippi Legislature passed an act which was approved March 21, 1908, authorizing the establishment of a county agricultural high school for white youth in each county, such school to be under a board of five trustees, one of whom shall be the county superintendent of schools, two to be appointed by the

board of supervisors and two by the county school board. A tax not exceeding 2 mills may be levied for the support of the school unless the majority of qualified voters object to such levy. If certain definite provisions regarding the establishment and maintenance of the school are complied with to the satisfaction of the State Board of Education, a grant of \$1,000 per year may be received from the State.

This act is given in full in Appendix G.

New Jersey.

In the New Jersey Senate, March 10, 1908, there was introduced by Mr. Colby a joint resolution, authorizing the Governor to appoint a commission to inquire into the subject of industrial education, and report thereon to the next Legislature. The five persons composing the commission are to serve without compensation, but may employ a secretary and other necessary clerical assistance. The commission's expenses must not exceed \$5,000.

A bill was introduced in the House, March 31, 1908, looking to the establishment of industrial schools in the larger cities of the State. The bill authorizes the Governor to appoint a commission of five persons, without salary, to consider the advisability of establishing such schools, to be maintained by the State in first and second class cities. This bill was passed by the Legislature of 1908, and will be found in Appendix G.

The commission has reported to the Governor, recommending the appointment of a State commission on industrial education, with authority to establish independent industrial schools.

New York.

A bill for industrial education was signed by Governor Hughes May 18, 1908. The measure provides for the establishment by local boards of education of general industrial schools, open to pupils who have completed the elementary school course or have attained the age of fourteen, and of trade schools open to pupils who are eighteen years old and have completed either the elementary school course or a course in the industrial school, or who have met such other requirements as the local board may prescribe.

Local authorities are authorized to appoint an advisory board of five members, representing the local trades and industries, two of the members for a term of one year and three for a term of two years, their successors to be appointed for a full term of two years. These local boards are authorized to employ competent teachers for the trade and industrial schools, to provide proper courses of study, to purchase grounds and lease or construct suitable buildings, and to purchase necessary machinery, tools, apparatus and supplies. For each independently organized industrial trade school the State is to appropriate \$500 each year where one teacher is employed and where there is an enrollment of at least 25 pupils, and an extra \$200 for each additional teacher employed exclusively in such schools.

In complying with the requirements of this law, a new division in the education department, called the division of trades schools, has been organized, and to it have been assigned the duties incident to the establishment, organization and management of these factory and trades schools. It is suggested that boards of education advise with local commercial and labor organizations, and invite expressions from the press and citizens; and that where a real demand appears for training in general shop work or in any particular trade, steps be taken to meet it. When this time comes at any point in the State, the education department, through the chief of the division of trades schools, will be ready to be of service.

On Sept. 10, 1908, the education department of New York State issued a circular, announcing that through the organization of a new division of trades schools the education department was prepared to take up the organization of factory and trade schools with local school authorities, commercial or labor organizations, or any other citizens who may be interested.

A circular of information was issued from Albany, N. Y., Oct. 1, 1908, for the purpose of anticipating some of the questions which will arise in reference to the recent law, providing for the establishment and maintenance of general industrial and trades schools.

The bill is given in full in Appendix G. Appended to this

bill are explanatory notes on the law as outlined in the bill, issued by the division of trades schools of the New York State education department.

Wisconsin.

An industrial school bill was enacted by the Wisconsin Assembly of 1907. This act, which is given in full in Appendix G, provided that any city or school district in the State of Wisconsin should have the power to establish, conduct and maintain a school or schools for the purpose of giving practical instruction in trades to persons having reached the age of sixteen years, such schools to form part of the public school system of such city, and to be under the supervision and control of the respective school boards; but after the establishment of such schools each school board may appoint an advisory committee on trade schools, which shall consist of five citizens not members of the school board, but each of whom is experienced in one or more of the trades taught in the school.

The funds for such industrial schools are to be raised by a tax not exceeding one-half mill on the total assessed valuation of the city. Provision is made for the temporary use of the regular school funds for industrial school purposes, reimbursement to be made from the industrial school fund when it shall have become available. A check on the introduction of an industrial school by the school board against the wishes of the community is maintained by the provision that the matter may be submitted to a vote of the electors of the school district, upon petition of 20 per cent. of the voters at the previous election.

An important provision of this bill is the permission to take over trade schools already established, thus following in the steps of European countries, where in many cases the schools taken over have formed the nucleus for the new State system.

As a result of this law, and in accordance with the last-mentioned provision, the Milwaukee School of Trades became the first day trade school to be operated under a State industrial school law.

STATEMENT RELATIVE TO THE REPORT REQUIRED OF THE COMMISSION, BY SECTION 6 OF CHAPTER 505 OF THE ACTS OF 1906, REGARDING INDUSTRIAL SCHOOL LEGISLATION NECESSARY FOR THE REIMBURSEMENT OF CITIES, TOWNS OR DISTRICTS EXPENDING MONEY FOR INDUSTRIAL EDUCATION, AS AUTHORIZED BY CHAPTER 505 OF THE ACTS OF 1906 AND CHAPTER 572 OF THE ACTS OF 1908.

In order to aid in the maintenance of schools now authorized, and of other schools which may be authorized previous to the adjournment of the General Court, as provided for by section 5 of chapter 505 of the Acts of 1906, and supplemented by sections 3 and 4 of chapter 572 of the Acts of 1908; also to provide for the reimbursement to towns of one-half the tuition paid for pupils attending an authorized industrial school in operation in another city, town or district, as provided in section 4 of chapter 572 of the Acts of 1908, — it will be necessary for this commission to ask for appropriations at an early date.

RECOMMENDATIONS FOR INDUSTRIAL SCHOOL LEGISLATION.

This commission recommends the following amendments in existing industrial school legislation: —

1. AN ACT RELATIVE TO INDUSTRIAL SCHOOLS.

Be it enacted, etc., as follows:

Section five of chapter five hundred and five of the acts of the year nineteen hundred and six is hereby amended by striking out the words, "Whenever any city or town or any district, as provided in the preceding section, shall appropriate money for the establishment and equipment and maintenance of independent schools for industrial training," and substituting therefor the words: — Upon certification by the commission on industrial education to the auditor of the commonwealth that a city, town or district, either by moneys raised by local taxation or by moneys donated or contributed, has maintained an independent industrial school, as provided for in chapter five hundred and five of the acts of the year nineteen hundred and six, as supplemented by chapter five hundred and seventy-two of the acts of the year nineteen hundred and eight, — so that the section will read as follows: —

Upon certification by the commission on industrial education to the auditor of the commonwealth that a city, town or district, either by

moneys raised by local taxation or by moneys donated or contributed, has maintained an independent industrial school, as provided for in chapter five hundred and five of the acts of the year nineteen hundred and six, as supplemented by chapter five hundred and seventy-two of the acts of the year nineteen hundred and eight, the commonwealth, in order to aid in the maintenance of such schools, shall pay annually from the treasury to such cities, towns or districts a sum proportionate to the amount raised by local taxation and expended for the support of schools for each thousand dollars of valuation, as follows: cities and towns expending more than five dollars for each thousand of valuation for the support of public schools to be reimbursed by the commonwealth to the amount of one half, those raising and expending between four and five dollars per thousand to the amount of one third, and those raising and expending less than four dollars per thousand to the amount of one fifth, of the cost of maintaining industrial schools: *provided*, that no payment to any city or town shall be made except by special appropriation by the legislature.

2. AN ACT RELATIVE TO INDUSTRIAL SCHOOLS.

Be it enacted, etc., as follows:

Section three of chapter five hundred and seventy-two of the acts of the year nineteen hundred and eight is hereby amended by the substitution of the words: — section five in place of “section four,” in the last line of the section, so that the last sentence of this section as corrected shall read: —

Such schools, if approved by the commission on industrial education as to location, courses and methods of instruction, shall receive reimbursement as provided in section five of said chapter five hundred and five.

PAUL H. HANUS.

A. LINCOLN FILENE.

CHARLES H. WINSLOW.

CARLTON D. RICHARDSON.

MILTON P. HIGGINS.

EMILY GREENE BALCH.

APPENDICES.

APPENDIX A.

REPORT OF THE WORCESTER COMMISSION ON INDUSTRIAL EDUCATION, ON A PROPOSED INDUSTRIAL SCHOOL FOR WORCESTER. (SCHOOL FOR MACHINISTS.)

The Worcester Commission on Industrial Education, appointed by Mayor John T. Duggan, June 25, 1907, as a result of a petition to the City Council, made a report to the City Council Monday night, June 15, 1908. The report sets forth the petition to the City Council, signed by the Worcester Public Education Association, Worcester Board of Trade, Worcester County Mechanics Association and the Worcester Metal Trades Association, also President Carroll D. Wright of Clark College, and 125 other citizens and 108 women interested in industrial education. This report asked for the appointment by the mayor of a local commission on industrial education, to consist of nine members, "citizens of Worcester, who are known to be interested in industrial education and are familiar with the manufacturing and mechanical needs of the city of Worcester, whose duty it shall be to confer with the State Commission on Industrial Education, and report to the City Council a plan, with estimates and details, for an industrial school for boys and girls in Worcester."

On this petition an order was adopted by the City Council, April 3, 1907, providing for the appointment of such commission, which was done by Mayor Duggan June 14, 1907, and is composed of Milton P. Higgins, Charles F. Marble, Cornelius J. Carmody, George I. Alden, John P. Casey, O. W. Norcross, John R. Back, John M. Buckley and Rufus B. Fowler. It is composed of four manufacturers, two educators, two representatives of labor and one lawyer. The commission, at the

Board of Trade rooms, June 25, 1907, organized by the choice of Mr. Milton P. Higgins chairman, and Mr. Charles F. Marble secretary. After frequent meetings, several conferences with representatives of the State commission, and examinations of plans, the commission made the following report: —

Resolved: First, that the city of Worcester be requested to provide industrial education, through independent trade schools, for both girls and boys.

Second, that, in view of the fact that such an undertaking fully carried out would involve much time and money, the city of Worcester should undertake at first the establishment of one industrial school for boys, to be ready for occupancy by the opening of the next school year, September, 1909, or before.

Third, that the object of this trade school shall be to produce efficient, skilled mechanical workmen, thoroughly trained and competent, who shall have also mental discipline and education adapted to vocational pursuits.

Fourth, that this school shall be conducted in suitable shops and schoolrooms combined in one building.

Fifth, that, owing to the prominence of the metal trades in this locality and the fundamental character of the machinist trade, the trade school first established should be for the training of boys over fourteen years of age in the machinist trade, including such instruction and practice in drafting, pattern making, tool making, die sinking, iron moulding and blacksmithing as are required in connection with the thorough training of a competent, intelligent, all-round machinist.

Sixth, that it is desirable that a suitable building be secured for occupancy by September, 1909, or before if possible, for the machine trades, and with the expectation that provision for the building trades and other trades may follow.

Seventh, that the following is a tentative plan for instruction for a four years' course in a school for the thorough practical training of machinists during a period corresponding to the high school age, the training of the school to be divided between practical shop work and school-book work. At least half of the time will be devoted to mechanical work under the best conditions for the pupil's advancement in high-grade practical skill; the other half of the time must include whatever is devoted to text-book work, recreation or play, drawing, excursions to shops and factories, athletics, art or music. Only the month of August will be allowed for vacation. Saturday afternoon is free from all school duties. But the life of the pupil must be devoted to interesting subjects, pleasurable change and earnest productive work in his vocation.

Your commission believes that the proposed industrial education will give Worcester boys and girls who wish to engage

in industrial work in early life as good preparation for their careers as is now given the high school pupil for his college course.

It is believed that such a half-time trade school will meet the needs of a large proportion of our community who think they must leave the public school to earn a living, and that this type of school will eventually prove to be the proper expansion of our public school facilities, which at present are only adapted to a professional or academic course.

INDUSTRIAL TRAINING FOR GIRLS.

In accordance with the provisions of the order specifying the appointing of this commission, consideration has also been given to the question of industrial education for girls. Two of the most important phases of such education are: training and care in the management of the home; and definite preparation for some form of industry. Every girl is associated with a home, and in later life may be called upon to take charge of a home. To perform her proper work in this sphere intelligently and economically, training in the household arts and sciences is necessary. It is no longer possible for girls to obtain this in many of the homes of to-day, so that, if they gain it at all, they must acquire it elsewhere. Schools of domestic science have been most successful in this direction. A school for this purpose would have courses in sewing, cooking, house-keeping, decoration and kindred subjects.

An increasing number of girls are obliged to go to work either as soon as they reach the age of fourteen years or within a few years afterwards, in order to support themselves or assist in the support of the rest of the family. To meet the needs of such girls, definite domestic science and trade instruction is needed, so that they may obtain a living wage and have opportunity for advancement. According to the report of the State commission appointed by Governor Douglas to investigate the subject of industrial and technical education, it was shown that, of the children between the ages of fourteen and sixteen that were engaged in industry in this State, about 45 per cent. are girls, so that there would seem to be nearly as many girls needing this instruction as there are boys. Investigation has shown that there is even less opportunity for apprenticeship in the

trades open to girls than in those for boys. The work of the girls' industrial schools already established in this and other countries shows that it is possible to give girls from fourteen to sixteen such training that they may enter upon trades like those of millinery, dressmaking, machine operating, pasting, etc., at much higher wages than they would have received at the same age had they entered the trade earlier without training, or had they attended the ordinary public schools. At the same time the opportunity for advancement is greater, as they understand all the operations required in the making of a complex article, instead of only one operation upon which they may have been engaged. Trade training also makes it possible for girls to enter many industries, requiring skill on the part of the operatives, from which they would otherwise be debarred; without this training they would be compelled to accept work in those industries in which less skillful operatives are required and lower wages are paid.

In addition to the fact that the wages received by trained girls are higher than those of the untrained, there is also a moral side to the question, which is even more important. In many industries it is difficult for girls who are unskilled to secure a living wage. Industrial training for girls may mean all the difference between a life of usefulness and respectability, or one of worthlessness. In the words of the report of the State Commission of Investigation: "If the standard of the working women in the State of Massachusetts is to be kept up to the high level which it has maintained in the past, more opportunities for industrial training must be offered to our girls."

Definite training for the duties of the household or for skilled industries and the habits of application therein acquired will inevitably make girls more reliable and more responsible in after life, whether it be their lot to become wives and mothers, or to continue in industrial work. Such training and the associations of the school may also be the only means of imparting to many girls the culture or taste for culture which should be one of the objects of all education.

As in the case of the boys' school, a part of the time in any industrial girls' school would be spent in the class room in the

study of such branches as English, arithmetic, history, science and other subjects which seemed fitting.

Your commission feels that the need of industrial training for girls is scarcely less urgent than that for boys, and refrains from recommending the establishment of an industrial school for girls at this time, because of the expense. We are of the opinion that this question should, however, receive favorable consideration when the finances of the city will permit.

GENERAL REMARKS.

We do not think that the best educational training for active industrial life is to be attained by great elaboration of organization, or by pretentious buildings beyond the effective and present needs of the school; therefore, the plans submitted for the first building have been studied with reference to the best provision for the present and near future.

However, we propose that the site secured shall include sufficient land for largely extended facilities, and the accommodation of greatly enlarged numbers in the various trades as needed in the future. Our plans for a building may be outlined as follows: —

The floor plan of the building is 50 feet by 200 feet, the frontage to consist of a substantial, plain building, 50 feet by 50 feet, four stories high. From this front building there extends a two-story building, 50 feet by 150 feet, of substantial modern mill construction, with abundance of light and ventilation, the central object being to provide ample room and shop conditions of strictly modern character. In this two-story building all mechanical practice of the students may be carried on under real shop conditions. The four-story front building is designed for office use and schoolrooms.

After a careful study of the law through which we are entitled to State aid for the maintenance of such industrial schools as are needed by Worcester, your commission found that an amendment to the State law was desirable. Accordingly, a petition was presented to the Legislature for an amendment, as follows, viz.: —

Any city or town may also establish independent industrial schools in charge of a board of trustees, which shall have authority to provide and maintain such schools. Such schools, if approved by the commission on industrial education as to location, courses and methods of instruction, shall receive reimbursement as provided in section four of chapter five hundred and five of the acts of the year nineteen hundred and six.

The petition for this amendment was signed by Carroll D. Wright of Worcester, Charles F. Marble of Worcester, George H. Martin of Boston and Milton P. Higgins of Worcester.

The proposition to amend the State law had the approval of the State Commission on Industrial Education, and met with no opposition, so far as we know. This amendment now forms a part of Senate Bill, No. 335, recently enacted by the General Court, and is now approved by the Governor. The delay in the passage of this bill has made it impossible to make this report at an earlier date.

THE SITE FOR THE PROPOSED TRADE SCHOOL.

The subject of sufficient land, both for present and future requirements, and a desirable location, has required much time and study by your commission.

A site and location adapted to the various needs of industrial education in all branches is that situated on Grove Street, extending easterly on Concord Street to Prescott Street, then southerly to the factory of the Hobbs Manufacturing Company, also extending east of Prescott Street to the Boston & Maine Railroad.

This lot has a frontage on Grove Street, near the Armory and opposite the Woman's Club, of over 200 feet. The lot contains about 66,404 square feet, and is now occupied by the W. H. Sawyer lumber yards.

If this location is purchased, it will be desirable to erect at first a building on the corner of Grove Street and Concord Street, 50 feet wide by 200 feet long. The part of the building on the corner of Grove and Concord streets, 50 feet by 50 feet, would be a substantial building, four stories high; while the building extending easterly from this four-story building

along Concord Street would be 150 feet long by 50 feet wide, and at present only two or three stories high.

The commission deems this location and its surroundings very desirable. The schoolrooms would look out upon Armory Square, while the school shops would face on Concord and Prescott streets, with desirable side-track facilities.

This lot is owned by the Art Museum, and is a part of the Stephen Salisbury estate. The trustees of the Art Museum are interested to have the industrial schools established in the best possible location. This land is valued at a very conservative market price of 75 cents per square foot, but a special price of 50 cents per square foot is made to the city if it is used for industrial education, under the following conditions, stated in a letter from the trustees of the Art Museum, May 21, 1908, viz.: —

[COPY.]

WORCESTER ART MUSEUM, WORCESTER, MASS., U. S. A., May 21, 1908.

MY DEAR MR. FOWLER: — The executive committee of the Worcester Art Museum have voted to offer the whole tract of land concerning which we have had some correspondence, that is, the land bounded by Grove and Concord streets, and extending back across Prescott Street to the railroad, at 50 cents per square foot for the purpose of an industrial school; the property for 100 feet back from Grove Street is not to be used for the erection of any building other than for such industrial school, of an architectural design to be approved by the Art Museum, and is not to be leased, used or occupied for any other purpose without the consent of the Art Museum; at least part of the building for such school fronting on Grove Street is to be built within three years from April 1, 1909.

This offer is subject to W. H. Sawyer's rights in said premises, which rights, I understand, the Museum would recognize until April 1, 1909.

Very truly yours,

T. H. GAGE, *Secretary*.

RUFUS B. FOWLER, Esq., *Worcester*.

The proposed first building would constitute a section, which would have a good appearance while standing alone and would be a harmonious part of an extensive industrial school building whenever it is constructed in the future.

PROPOSED ARRANGEMENT OF STUDIES AND WORK FOR THE
WORCESTER TRADE SCHOOL.

This schedule is arranged on the basis of a total registration of 200 students in a four years' course. This number has been assumed to be divided in the following proportions: first-year students, 80; second-year students, 50; third-year students, 40; fourth-year students, 30, — 200.

The above proportion, while arbitrary, is not far from that found in schools where there is a similar opportunity for students to leave and go to work before their course is completed.

It has been assumed that fully one-half of the time will be given by students to shop work, all instruction in the form of lectures or demonstrations, etc., being given outside that time. To accomplish this object with the most economy, half of all the students should be in the shop at once, and half in recitation rooms or at study.

This will involve a shop capacity of 100 boys, for which the plans provide if no work of too large a character, requiring much floor space for erection, is undertaken. For class room work five recitation rooms are provided, which will accommodate the three upper classes, each in a separate room, and the entering class divided into two sections. This brings no more than 25 boys in any one class room together, and makes classes which can be thoroughly taught by one instructor.

The tentative schedule of studies per week suggested for the first year is as follows: shop arithmetic, two recitations, two hours study; shop algebra, two recitations, two hours study; English, two hours instruction, hours of study, none; civics and citizenship, two recitations, two hours study; drawing, four hours work; shop lectures, two to five hours; total student time, twenty to twenty-three hours per week, besides twenty-two hours shop practice; total instructor's time, fourteen to seventeen hours for each of the four divisions of the first-year class.

The shop algebra and arithmetic, in order to be of use, must be taught by a teacher thoroughly acquainted with shop methods and processes. The same must be required of the teacher in drawing and machine design. The shop lectures will be given by the head shop instructors. The English, civics and

citizenship may be taught by men totally unacquainted with shop work. The first-year work in shop would naturally include most of the work which would be given in carpentry, and a start in all the other branches, as pattern-making, tool forging, care of engines and boilers, care of tools in tool room, cleaning castings and machine work.

For the first year of the school's existence the two classrooms used by the entering class would have to be equipped, the drafting rooms fitted up, the entire power outfit installed, the wood-working shop entirely made ready for work, and about one-third the equipment of the machine shop and blacksmith shop put in.

Instructors would be needed in both wood work and machine work, who would have older boys as assistants in their tool rooms. The blacksmith shop would require a competent blacksmith, and there would be need of a good steam engineer.

The schoolroom work could be easily handled by one live instructor in arithmetic, algebra and drawing, with some assistance from the superintendent or director, and outside help from a part-time instructor in civics, citizenship and English from some other school in the city. The superintendent should have a share in the instruction of the entering class, so that he will make the personal acquaintance of every boy.

The second-year study schedule proposed is as follows: geometry, two recitations, two hours study; English, two hours instruction, hours of study, none; civics and citizenship, one recitation, one hour study; history, one recitation, one hour study; physics, two recitations, two hours study; shop lectures, two to five hours; drawing, four hours; a total of fourteen to seventeen hours per week for the teachers for each of the two divisions, and twenty to twenty-three hours per week for the student, besides the shop instruction of twenty-two hours.

For the third year: English, one recitation, hours of study, none; physics, two recitations, two hours study; commercial geography, one recitation, one hour study; bookkeeping, one recitation, hours of study, none; arithmetic, one recitation, hours of study, none; trigonometry, one recitation, one hour study; shop lectures, two to five hours; drawing, four hours; total instruction, fourteen to seventeen hours per week for each

division; total for students, nineteen to twenty-two hours per week, besides twenty-two hours shop practice.

Fourth year, first half: English, one hour instruction, hours of study, none; commercial arithmetic, one recitation, one hour study; chemistry, two recitations, two hours study; cost accounts, one hour instruction, hours of study, none; physics, three recitations, three hours study; shop lectures, two to five hours; drawing, four hours.

Second half: English, one hour instruction, hours of study, none; commercial law, one hour recitation, one hour study; political economy, two hours recitations, two hours study; cost accounts, one hour instruction, hours of study, none; physics, three hours recitations, three hours study; shop lectures, two to five hours; drawing, four hours; total instruction, both half-years, fourteen to seventeen hours per week for each division; students work twenty to twenty-three hours per week, besides twenty-two hours shop practice.

Commercial geography taught in the third year to consist of such work as routing of freight to all parts of this and other countries, the study of bills of lading, tariffs, etc. The commercial arithmetic to deal with such problems as interest and discount on notes, foreign exchange, etc.

Shop arithmetic, algebra, geometry, physics, commercial arithmetic, trigonometry, costs, must all be taught by men who have had practical use of all these subjects, and with special reference to their practical application. These call for both divisions of all classes, forty-four hours of class room instruction per week.

These subjects, with the drawing, could be handled by two teachers, who would also be able to look after shop inspection, trips, etc., with some aid from the superintendent.

The balance of the instruction, being more in the way of improving the student's mind than of practical purpose, could be given by teachers who might be able to devote part time to this school, in addition to their regular duties elsewhere.

For the first year the working force needed, then, would be: superintendent or director, bookkeeper or clerk, two regular teachers in schoolrooms, two regular teachers in shop, steam engineer.

It is deemed of fundamental importance by your commission that the shop practice shall secure to each graduate a thorough, practical mechanical trade. For example, the graduate machinist (using the term machinist in its broadest sense) should not only be a highly skilled workman, expert with all the tools and machines of the modern machine shop, but he will have received technical instruction and some practice in the allied branches which are related to his business; that is, the graduate machinist will also be a draftsman, and know something of pattern making, moulding, die sinking and forging.

All shop practice will be under the supervision of skilled workmen, who will act as expert working foremen and instructors.

Practice in the machine shop will include the most effective use of all the hand tools and machine tools required in the manufacture of the various kinds of machinery.

The following is a partial outline of the shop course, following the list of tools and machines used by the machinist. When other trades are introduced into the school, the same thoroughness of method will be followed with the tools of that particular trade.

For example, the pupil will begin in the machine shop of the school with the hammer, cold chisel and prick punch. The file, the scraper, the oil stone, will be used in the most modern, practical way, till the pupil is skillful and intelligent with each one. The pupil will become expert with the use of tools of precision, including the use of plain calipers, of the various kinds for rough work, and micrometer calipers for quick measurements of the highest accuracy required for the best class of practical machine construction, also indicators for testing the accuracy of machine parts and the truthfulness of machinery in operation.

The same thoroughness of training will apply to the large and small machine tools, such as the lathe, in its great range from rapid rough turning to accurate fitting; the grinding machines of the various types, of work from the crudest, where quantity is a necessity, to the most refined workmanship, where ten-thousandths of an inch are required and definitely measured.

Planers, boring mills, gear cutters and the whole range of machine tools will receive the same definite, practical attention.

The above details of shop practice cover but a very little of the whole range of shop experience which the graduate machinist will have in the school. It is given here to indicate the thorough practical methods intended for the shop training in all departments. The breadth and practical character of the schooling by means of study and instruction in the schoolroom are given in another section of this report. The object is to give a broad, practical training for the boy who intends to lead an industrial life, who wishes to learn a thorough trade as a basis of his future success.

SHOP PRODUCTS.

The question is often asked: "What disposition will be made of the products of the school shop?" The answer is this: "If the pupil is to attain, while in the trade school, a practical, all-round training as a skilled workman, he must be trained upon high-grade machine products, made under real shop conditions by approved methods. Therefore, there must be a shop product."

The amount of products will necessarily be small, but the quality must be excellent. For a considerable time the product of the school shop would be required for enlarged shop and schoolroom equipment. The output of the school shop would be required for other schools for a still longer period. Meanwhile, there would be established some special machine industries along lines of work not produced in Massachusetts; for example, such as a line of independent and universal lathe chucks, or the manufacture of jigs and fixtures for other shops. Such articles of manufacture would be superior in quality, design, material and workmanship, so that the practice for the pupils would be of a high order.

Though there would be no competition within the State, the superior character and price should not meet with any serious objection from competing makers in any part of the world.

Another line of productive work suitable for trade school shops, on account of the superior opportunity it will offer for

high-grade skill and varied shop experience, consists of rebuilding and repairing used or second-hand machines.

It is the belief of your commission that many lines of productive work similar to the two examples above mentioned could be produced in a school shop, with the entire approval of our citizens, manufacturers and workmen.

The basis of all objections to productive school shops consists in the following: —

First. — In the claim by manufacturers, on the ground of competition in the market of the State.

Second. — On the part of skilled workmen, who fear that the opportunity for workingmen will be reduced by the work in school shops.

Third. — The objection from the general market, from the fear that cheap goods will be sold at reduced prices.

None of these objections can justly be offered if the school shop produces nothing that will unfairly compete with goods manufactured in Massachusetts, if nothing will be sold under market price, and if all products are of superior quality, and consequently tend to raise, not lower, the prevailing prices of skilled labor and the products of skilled labor.

PROPOSED ARRANGEMENT OF STUDIES AND WORK FOR THE WORCESTER TRADE SCHOOL. — EVENING CLASSES.

This schedule is based on the expected attendance of men already employed in the trades, who wish either one or more of the following things: to increase their general fund of technical knowledge; to increase their technical knowledge of some one particular branch; to increase their skill in the running of certain machines; or to learn to run other machines.

To fit these requirements, it is proposed that two distinct classes be formed, one meeting three evenings per week for study and recitation only, and the other meeting the other three evenings for work in the shops. In case of need, other classes may also be formed, which will use the shops while the first two classes are in recitation, and use the recitation rooms while the first-mentioned classes are in the shops. In this way it would be possible to accommodate 250, or possibly more pupils

in the evening, the number being less than that which might be expected from the day-school accommodations, on account of the more advanced character of the shop work which would be called for, and also on account of the desirability of smaller classes in recitation rooms, to enable the instructor to come in more personal contact with his pupils than is necessary with younger men.

It is to be expected that many men already well skilled in some branch of their trade will look to this school for the means of acquiring skill in other departments that they cannot otherwise get without considerable cost to themselves; for example, a man may be skilled as a lathe hand or a planer hand, but because he is not also competent as a milling machine hand or as a gear cutter, he may feel that his advancement is barred. Again, a man may be skilled as a machinist, and yet not be able to accept a position which he might wish on account of a lack of technical knowledge which might be easily supplied, sometimes by a general course outlined below, or sometimes by special instruction, which ought to be furnished, even if special instructors had to be called in. Any instruction which might fairly be called for along mechanical lines should be furnished.

Six hours per week is allotted to recitation and lectures, taken in three periods alternate evenings from 7.30 to 9.30, over a period of about thirty-six weeks in the year. No number of hours of outside study is given, because it is felt that men who would wish to take these evening courses would do the best they could, without regard to any set hour plan.

First year: shop arithmetic, two hours per week; shop algebra, two hours per week; English, two hours per week.

Second year: geometry, two hours per week; physics, three hours per week; English, one hour per week.

Third year: physics, two hours per week; trigonometry, one hour per week; commercial arithmetic, one hour per week; English, one hour per week; commercial geography, one hour per week.

Fourth year, first half: physics, two hours per week; commercial arithmetic, one hour per week; cost keeping, one hour per week; chemistry, two hours per week.

Fourth year, second half: physics, two hours per week; cost keeping, two hours per week; commercial law, one hour per week; political economy, one hour per week.

The arrangement of this course has been made in the hope of attracting men who feel the need of the arithmetic and algebra offered the first year, and then showing them the advantage of the studies offered later, and with the expectation that at whatever time the student might drop out, he would have spent all his time on something of value to him. No time for drawing or designing has been allowed in this course, it being thought best to group that with the other distinctly manipulative work of the shop.

ESTIMATE OF RUNNING EXPENSES, OR ANNUAL MAINTENANCE. —
FOR DAY SCHOOL, ACCOMMODATES 200 PUPILS.

	First Year.	Fourth Year.
Materials,	\$3,000 00	\$6,000 00
Power, light and heat,	1,200 00	1,500 00
Supplies,	200 00	500 00
Insurance (personal property),	100 00	150 00
Telephone,	75 00	75 00
Depreciation,	—	1,000 00
Library,	125 00	125 00
Incidentals,	150 00	150 00
Rent of land,	2,000 00	2,000 00
Salaries: —		
Superintendent,	2,100 00	2,500 00
Clerk,	300 00	750 00
Class room teachers,	1,200 00	3,000 00
Shop teachers,	2,200 00	3,000 00
Engineer and janitor service,	1,200 00	1,200 00
Totals,	¹ \$13,850 00	¹ \$21,950 00

¹ One-half of the cost of maintenance to be paid by the State.

ESTIMATE OF COST FOR PLANT AND EQUIPMENT, NOT INCLUDING SITE.	
Building to accommodate 200 day pupils and 200 evening pupils,	
	\$50,000 00
Full equipment of shops and schoolrooms,	50,000 00
Total,	\$100,000 00

The extra cost for the evening school would be difficult to estimate correctly, but it should be kept within these limits:—

Class room teachers,	\$1,500 00
Shop,	1,500 00
Extra power, light and heat,	1,000 00
Materials,	500 00
Total,	¹ \$4,500 00

The above estimate is for 200 evening students each, taking six hours per week for thirty-six weeks.

The above resolutions and the substance of this report are unanimously approved by the State Commission on Industrial Education, under whose general approval this school, if established, will be carried on, otherwise, we could not expect State aid. In view of the foregoing, unanimously adopted by this commission, and which is in harmony with the report of the Governor Douglas commission and the views of the present Massachusetts Commission on Industrial Education, we recommend the adoption of an ordinance providing for a board of trustees, as provided by statute, who shall, under suitable rules and restrictions, and with the approval of the State Commission on Industrial Education, carry out the recommendations of this report.

Signed by your commission,

MILTON P. HIGGINS.
CHARLES F. MARBLE.
CORNELIUS J. CARMODY.
GEO. I. ALDEN.
JOHN P. CASEY.
O. W. NORCROSS.
JOHN R. BACK.
JOHN M. BUCKLEY.
RUFUS B. FOWLER.

¹ One-half of the cost of maintenance to be paid by the State.

APPENDIX B.

REPORT OF THE LYNN COMMISSION ON INDUSTRIAL EDUCATION ON A PROPOSED INDUSTRIAL SCHOOL FOR LYNN. (SCHOOL FOR SHOE WORKERS.)

To His Honor the Mayor and to the Honorable City Council of Lynn.

The Commission on Industrial Education was appointed April 7, 1908, in accordance with an order of the City Council designed to secure to Lynn the aid of the Commonwealth in establishing an industrial school here, under the provisions of chapter 505 of the Acts of 1906. We beg leave to report as follows:—

The commission has held frequent meetings, at first to hear the opinions of gentlemen competent to advise, later for discussion. Valuable suggestions have been received from the executive secretary of the State Commission on Industrial Education, from the members of the special committee on trade education of the Lynn Board of Trade, and from the chairman and the secretary of the commission in charge of the Lawrence Trade School.

The State commission has supplied every member with a compendious typewritten account of the character, equipment and courses in the few shoe trade schools already in existence in England and Germany, and this has been carefully considered in committee meetings.

The harmonious spirit that has marked all meetings of the commission and those of its committees, however earnest the discussion of the plans and principles, and the hearty agreement of all to this report, have been due to the desire of all its members—representatives of manufacturing interests, of labor, of business and of the professions alike—to unite in formulating plans for a school that shall serve no one class

above another, but shall soundly advance the interests of Lynn's leading industry in such wise as to benefit all citizens.

The commission has been aided in determining the features of a trade school that should meet the special conditions and needs of our city and the shoe industry by securing the personal advice of hundreds of Lynn citizens, parents of pupils in the upper grades of the public and parochial schools. Under the direction of the State Commission on Industrial Education, two members of the local commission, together with several associated special agents who were Lynn teachers or shoemakers, presented to parents in their homes the tentative plans at first adopted. This canvass, extending over three months, revealed a practically unanimous public approval of the general plans in view, and a desire on the part of many parents that some of their own children might enter the proposed school; and these conferences with citizens of all trades, industries and professions gave the commission valuable suggestions, which have been embodied in the final plans here reported.

The proposed industrial school for Lynn should be a shoe trade school, — a day school. In years to come it should in addition train boys and girls for other leading trades, or be supplemented by a general trade school. It may well develop into a technical school of high rank for the shoe industry, capable of testing materials, processes and inventions, and of advancing the industry directly, as well as indirectly through the education of competent workmen.

From the first there should be a four years' course, giving thorough and comprehensive instruction and such practical training as shall fit its graduates to rise to the highest positions in the trade and to large usefulness in society. Conferences with hundreds of parents in Lynn make it clear that the great majority desire for their children as good a general education as possible, and that they are also insistent that schools shall be intensely practical. This school should satisfy both ideals. Citizens generally condemn, with good reason, the present so-called trade schools run by private parties, and few desire a public school with a short course¹ designed to train persons merely to run machines. While this might favor some

manufacturers for a few years, the permanent prosperity of the shoe industry in Lynn, and the consequent welfare of manufacturers, workmen and the public alike, must be founded upon the education of our youth — the future workmen, foremen and manufacturers — to industrial intelligence and skill as thorough and relatively superior to-day as was true of the men that established Lynn's pre-eminence when shoe manufacture was a handicraft.

The character of the school determines the conditions of admission. It will be opened to those trained in American elementary schools. It should welcome, primarily, the graduates of grammar schools. In line with the position of the Massachusetts Commission on Industrial Education, however, it may wisely admit youth fully fourteen years of age who have advanced to the seventh elementary grade, and who would otherwise leave school for the factory at once. It may also provide special courses for graduates of high schools and colleges.

It may well be emphasized that such a four years' course would never be entered upon by adults, and that no foreign youth who had not first acquired such a good knowledge of English and other elementary studies as would admit them to the seventh grade of the public schools could be admitted to the school. The fundamental purpose of the proposed shoe trade school is to wisely attract and thoroughly prepare the best sons and daughters of Lynn for the development of our leading industry.

The curriculum of the school, then, should be a fair equivalent to that of general secondary education in scope, embracing such divisions of the several branches of mathematics, language, science and social institutions as have close relation to the shoe industry. This class room instruction must be accompanied by and based upon much practical training and practice in all departments of shoe manufacture and in the production of shoes of good quality. It will readily be appreciated that such a course will fit youth to become masters of their trade, and will also do much to give them that broad outlook upon life that constitutes general culture.

The courses in mathematics, under the above general principles, will include arithmetic, bookkeeping, geometry and ele-

mentary mechanics. The arithmetic will deal with problems of the shoe factory and subsidiary industries that concern stock, machinery, costs of production, wages, etc., and will lead to figuring the costs of a shoe and the mathematics of factory management. Bookkeeping should be taught, both that workmen and foremen may understand their relations to the bookkeeping department, and also that girls who are already thoroughly conversant with shoe manufacture may be trained for factory bookkeepers, and be correspondingly valuable. Geometry must be taught in relation to its application to last making, pattern designing and drafting, and to mechanics. Under elementary mechanics the principles of physics as to power, motion, machines, etc., will be applied to shoe machinery, to sources of power and to its transmission. Mechanical and freehand drawing should be taught and practised, particularly as a means of expression and of understanding lasts, patterns and machines.

The scientific courses will include physiology and hygiene, physics, chemistry, and the geography of materials, production and markets. Physiology will naturally include a thorough study of the anatomy of the foot, as fundamental to shoe design and manufacture, and the special hygiene pertinent to shoe factories. Upon a basis of general chemistry, its special applications to tanning, to stains and blackings and to cements will be considered. Physics will not only enter largely into mechanics, it will also treat of the effects of water, heat, friction and strain upon leather and other materials used. Industrial geography should give a thorough first-hand study of the materials used in the industry, especially leather, noting their nature and consequent values, their sources and the causes of their distribution, with related variations in value and the conditions of their transportation and trade. The processes of treatment and manufacture of raw materials, more especially hides, before entering the shoe factory, involve much applied science; and their study will give sound basis for intelligent treatment of leather and other materials, in view of their variations. Production should be viewed in its historical development, and as to its present distribution with relation to national character, commerce, climate and labor, so that the

advantages of Lynn as a center of production may be rightly estimated and utilized to the full. Commercial geography, presenting the needs and customs of different countries as to footwear, with the geographical causes, and studying the centers that control shoe trade, with reasons for their pre-eminence, will complete this survey.

The history of manufacture and commerce since the industrial revolution of a century ago will be studied. Especially will the history of the shoe industry be traced in full, that present conditions may be understood. The development of allied industries, such as tanning and the manufacture of machinery, will be reviewed. The simpler important principles of economics will be made known, as related to the prosperity of the industry, of the manufacturer and of the workman. The relations between employer and employee will be discussed, and the history of the development of labor unions and of manufacturers' associations will be surveyed, as a basis for future industrial righteousness and harmonious action. A related subject will be that of factory organization, considering the arrangement of the several departments, the placing of machinery, the work of departmental managers, the stopping of leakages, the relation of the office and sales department to the factory departments proper, and methods of keeping trace of work during manufacture. In civil government there will be emphasized the relations of the industry to the nation, State and city, and the subject of industrial and commercial law as it affects workmen and manufacturers separately and in their relations to each other.

The study of the English language — of first importance in the general education of citizens — will be closely related to the shoe trade. The literature read and studied will present industrialism in a broad view, and the lives of industrial leaders as a means of inspiration. In composition there should be instruction and practice upon business letters relating to materials, labor, machinery, sales, payments, etc., both giving insight into the business and training for future correspondence, whether as workmen, foremen or manufacturers.

The school must have its own full equipment of machinery for shoe production. In the earlier years of the course the

students should be given a measure of personal practice in every phase of the industry, from the making of lasts and patterns to the finishing and packing the shoe for shipment. In the first year such hand processes as are still in use, or which are fundamental to the most intelligent handling of machinery for attaining the same ends, — for example, hand lasting and welt stitching by hand, — should be practised. As the last year of the course approaches, when the students will have acquired a good general familiarity with every process in shoe manufacture, they should be divided, according to their capacities, standing and preferences, among the several divisions of the industry. Special studies and practice should then be provided for those who are to become last makers, or pattern designers and drafters; workers in the other subsidiary trades, as stains and blackings or cut soles; workmen in the several departments of the factory, as cutters, stitchers, lasters, edgemakers or finishers, or salesmen. All these parts of the trades profit by a good practical acquaintance with the full process of shoe manufacture. In each line the school, during its last year, should give the special instruction and the amount of practical experience necessary to fit a youth to take and fill a good position at graduation.

This course, including both broad foundational training and intensive specialization in a particular department of the industry, is requisite if the ablest workmen are to be produced to advance the industry. It is fortunate that each elective specialization is possible, for it gives students a wide range of choice as to the exact character of their life work at a period of life when they may well have come to know their own abilities and tastes. And this arrangement of the course is also designed by the commission as a conclusive guarantee against providing a surplus of labor in any department of the industry. It is the last year of the course that will bring to fruition in earning capacity the preparation of the earlier years; thus every pupil will be most desirous of remaining until graduation. While under some plans there might have been encouragement to men or youth to enter the school for a few months or a year, with a view to leaving whenever labor conditions gave opportunity to secure employment, this arrangement of the course effectively prevents such action.

There are some 18,000 men engaged in the shoe industries of Lynn. The assessors' lists of polls show that some hundreds of new shoemakers enter Lynn every year. This school is not likely to provide as many as a hundred graduates a year, and under the above fundamental plan these will be distributed a few to each of many divisions of the industry. The school can create no competition harmful to any competent Lynn workmen. It will provide far less workmen than are needed annually. In the main, it will merely delay the entrance of Lynn youth into our factories until by four years' trade instruction they are finely prepared to become workmen. If a few more and some abler boys and girls enter the trade than at present they will merely check slightly, the coming of workmen from outside Lynn, rather than replace any citizen of our city now employed in the industry. It is designed to make it possible for Lynn youth to prepare themselves to fill the higher positions in each department, and to become operatives possessing the most skill and receiving the highest pay; whereas to-day such positions are often occupied by men but partly equipped for superior service, and usually by workmen who were neither born nor trained in Lynn.

The school will be equipped with machinery for all processes of the factory and of the leading systems in use. Since the object of the school is to produce shoemakers, rather than shoes, it will aim to secure highly intelligent workmanship and a high grade of product rather than to train students to speed as operatives. The product will therefore be small, and, while it should be marketed so as to cover at least the cost of all materials used in its production, it can in no appreciable degree affect the business of established firms.

As already indicated, there should be both general and special training in every branch of the industry and every department of a factory. *Last making* should be taught; the woods used; the forms of lasts; the methods of production. *Pattern making* and grading: for uppers and for bottoms; variations for methods of manufacture; for machines; and for economy. The *cutting* of linings and leather: leading methods for quality, economy and other considerations. The *stitching* or fitting of uppers: various methods of fitting; the relation of parts as fitted; proper allowance for seams on various materials; ma-

chines and processes. *Sole leather* cutting and sorting: including heels and counters; the divisions of a hide, and the grades obtained; methods of stripping, cutting and sorting. *Stock fitting* for McKay shoes: welts and turns; the wetting and tempering of soles; dinking, rounding, channelling, moulding, feather edging; and insole fitting by various processes. *Lasting* of McKay shoes; welts and turns, both by hand and by all machine processes. *Bottoming*: the stitching of McKay shoes, welts and turns; heeling, shaving, scouring, trimming and setting of edges; burnishing of heels; buffing. *Finishing*: bottom finishing in black or stains; fancy wheeling, channelling and burnishing. *Packing*: tip fixing, treeing and dressing; cleaning, trimming and packing of shoes.

The course of instruction for boys is clearly outlined above, but it is expected that the students will include a large proportion of girls, preparing them especially for positions in the stitching department, but also for bookkeepers in the factories and for other lines open to women. While much the same general course meets the needs of girls and boys, so that to a considerable degree their instruction may be in common, the commission believes that the course for girls should include instruction in household economy and the domestic arts. A girl should be taught a trade or occupation, which she may practice as a young woman and rely upon for support if need arises subsequent to marriage; but it is even more important, both to the individual and to society, that every woman should be well trained in home keeping. One result of the canvass of over two thousand Lynn parents by the Massachusetts Commission on Industrial Education has been to reveal what universal and hearty approval is granted this principle by the citizens. The curriculum for girls, then, will include courses on the construction, furnishing and care of a home; on foods and cooking; on clothing, with instruction in dressmaking and millinery; on home nursing, sanitation and the nurture of children; on accounts and general domestic economy.

This standard four years' course will meet the needs of a majority of the students; it implies full course of our elementary schools as a basis, and a correspondingly high grade of work in preparation for trades and citizenship. But, as

already stated, the school should accept pupils full fourteen years of age who have reached the seventh grade of Lynn schools, and who must thereafter change from general education either to work in a factory or to trade education. The course will be modified to correspond to their preparation and requirements.

The canvass of Lynn parents has shown that many wish to enter some of their children in the shoe trade school, when established, whose family income will not permit sending them to school after they have reached the age of fourteen years, unless they can support themselves while gaining a trade education. To meet this condition, and thus open the school to every ambitious youth, one of the members of the commission, under the direction of the State Commission on Industrial Education, has presented to the shoe manufacturers and to the allied industries of Lynn the proposition of a half-time class. Many have agreed to support the following plan: —

Pupils who cannot give their entire time to the school will be placed in a special class each year. This will be divided into two equal sections. For every pair of boys or girls a position will be secured by the commission in a factory, not at skilled labor at first, but on kinds of work now performed by beginners. One of every pair will work in the factory for a week, the other will be with his section of the class at school for the week, and so on alternately. Thus the youth is able to support himself, and is also able to continue and complete his education. While it will take more than four years to cover the ground of the four years' course in a half-time class, experience under this plan elsewhere indicates that it could be substantially covered in some six years of half-time work.

The faculty of the school should be thoroughly competent. Their maximum salaries should be equal to those paid in the classical and English high schools. One young woman of Lynn, a graduate of the high school, for ten years an employee in a stitching room, practised in most parts of the work there, with experience as a teacher in the evening school, has this year entered the course for commercial teachers in the Salem Normal School, with the express purpose of fitting herself to become a teacher in a shoe trade school when established. It is

this type of teacher, possessing thorough industrial skill gained under the best factory conditions, coupled with normal training and experience in teaching, that the commission desires. There will be a few such candidates available: the school must produce its own teachers. Those taking charge of general class room work will naturally be primarily teachers who have been trained in technical schools of college grade, and are ready to possess themselves of a practical knowledge of shoe manufacture. Those chosen to give instruction in shop practice and actual shoe manufacture must be men of the type of the best foremen, highly intelligent, of good general education, widely skilled as operatives, accustomed to train operatives in the factory, and ready to acquire and apply the principles of pedagogy in their work in the school. They should be organized under a principal or superintendent capable as an executive, and able to impart to all his assistants such normal instruction as will make every one in time finely capable as a teacher, and all a unit in harmonious, close, effective co-operation of work rooms and class rooms.

In stating the probable cost of a shoe trade school, the commission has aimed to present maximum estimates probably somewhat in excess of the expenditures required. We believe the investment should be as small as will ensure the results desired; and to this end we advise that the school work rooms and class rooms be fitted up in one of our modern factory buildings. Since the expense for light, heat and power will be less for the school than for a firm manufacturing shoes, the rental should be a little below the usual price.

With the same object in view, members of the commission have conferred with managing officers of the leading corporations producing shoe machinery, with a view to securing for the school, free of expense, the use of the best machines of leading types. The value of a good industrial school to the shoe trade and to all its dependent industries is so manifest that no difficulty was found in interesting manufacturers of machinery in the proposition. While no definite agreement could be expected in advance of the formal decision of the city to establish the school, we have a communication from one of the largest producers of shoe machinery, expressing a willing-

ness to equip the school with suitable machines this coming year. Aside from this, the fact that costly machinery has been freely given to other trade and technical schools in Massachusetts and in the United States, and to the Shoe Trade School in London, Eng., would give reason to expect that the same generous support will be rendered here.

On the other hand, the plans must be liberal enough to secure a school which will graduate thoroughly competent men and women, — one of which Lynn may be proud.

We believe that two class rooms, to seat 50 pupils each, will be needed the first year, with space for a full equipment of machinery for making McKay shoes, welts and turns, cutting, stitching, making and packing rooms. This will require nearly 12,000 square feet of floor space. While we have good ground to hope that the shoe machinery will be installed without further material expense, further equipment of the school with desks, furniture, display cases, benches, shafting, pulleys, lasts, etc., may cost as high as \$5,000. The first year the faculty would include a superintendent, a male assistant, two female teachers, and instructors or foremen in the cutting, stitching, lasting and edgemarking rooms. Their salaries should not exceed \$10,000. The first cost of leather and other materials would approach \$5,000. But this expense would be merely an initial investment, the sale of product supplying funds with which to renew materials. We further include an additional \$2,600 for incidental expenses, to cover all contingencies. The total expenditure for equipping the school and maintaining it for a year would thus be \$25,000, as shown in the following statement: —

Rental (12,000 square feet factory space, at 20 cents), . . .	\$2,400
Equipment, furniture, shafting, tools,	5,000
Leather and other materials,	5,000
Salaries of instructors,	10,000
Incidental expenses,	2,600
	<hr/>
	\$25,000

In considering the wisdom of making an appropriation to establish and maintain this shoe trade school, it should be recog-

nized that, taking into consideration the State aid guaranteed to approved trade schools, the expense to the city is after all nominal, — substantially a difference in bookkeeping, rather than an increase in the tax levy. This is so because many of the pupils of the school will be boys and girls who would otherwise attend the high schools. The expense of their education will be met by the establishment of a new school, while otherwise such expenses would be incident to the further enlargement of our present secondary schools. It is true that other pupils will continue their education in a shoe trade school, who now go to work when fourteen or fifteen years of age; but since the commonwealth has engaged to repay to the city half the expense of maintenance of a trade school, their further education will be at the expense of the State rather than of the city.

Were the school to cost the city an additional \$25,000 yearly, or even more than this, we believe the expense would be amply warranted by the returns it would ensure in the way of industrial advance; but since it virtually requires little or no added expenditure of city funds, it must be clear to all that such an industrial school is highly advantageous. Doubtless for this reason this commission was not appointed to report a plan of a school for consideration, but “to secure the locating of a trade school in Lynn.”

The report of this commission has been based upon the general principles adopted by the Commission on Industrial Education of the commonwealth; the plans for the school have been elaborated in frequent consultation with its executive secretary; and this report has been submitted to the State commission, and the plan for the school outlined above meets with its approval. This commission has therefore obeyed the instructions in the letter of appointment to its members, and, in case of favorable action by the city, has ensured the establishment of a trade school in Lynn under the direction of the State Commission on Industrial Education, and supported by the commonwealth jointly with the municipality.

The commission, in submitting this report to the Honorable City Council, would recommend that it be acted upon decisively so early that, in case of the adoption of the plan with conse-

quent provision for establishing the school, there may be ample time for a permanent commission to secure instructors, equip the school and issue a prospectus before September, 1909, since many parents now anticipate that such a school will then open.

Respectfully submitted,

CHARLES H. HASTINGS, *Chairman*,
JOSEPH CAUNT,
R. S. BAUER,
RT. REV. MONSIGNOR A. J. TEELING,
RICHARD H. RICE,
ALBION BARTLETT,
PHILIP EMERSON,
CHARLES P. MURRAY,
I. BOYNTON ARMSTRONG, *Secretary*,
Commission on Industrial Education.

DECEMBER, 1908.

APPENDIX C.

TABULAR PRESENTATION OF GENERAL INVESTIGATIONS IN 45 CITIES AND TOWNS, CONCERNING THE EDUCATIONAL PLANS OF PUPILS FOURTEEN YEARS OF AGE AND UPWARDS¹ IN THE SIXTH, SEVENTH, EIGHTH AND NINTH GRADES OF THE GRAMMAR SCHOOLS, IN ORDER TO DETERMINE THE NUMBER OF THESE PUPILS LIKELY TO ATTEND A LOCAL INDUSTRIAL SCHOOL.

A brief description of this investigation has been given in the body of this report, on page 80.

Through the co-operation of the superintendents of schools in May and June, 1908, question cards were distributed among the pupils of the sixth, seventh, eighth and ninth (where such exist) grades of the grammar schools of 45 cities and towns of the State having over 10,000 inhabitants, according to the census of 1905.

The replies showed whether the pupil did not expect to graduate from the grammar school; whether he (or she) expected to graduate from the grammar school, but did not expect to continue education farther; or whether it was expected that education would be continued beyond the grammar school.

The returns from 36 cities and towns, which have the sixth, seventh, eighth and ninth grades in the grammar schools, are contained in Table I.

The returns from 6 towns, which have the sixth, seventh and eighth grades in the grammar school, but do not have a ninth grade, are contained in Table II.

In four cities, Lawrence, Lynn, Springfield and Worcester,

¹ The investigation also included pupils approaching fourteen years of age, who would have attained the industrial school age within a short time.

a later inquiry was made in the high schools, to see which of the pupils that were in the highest grade of the grammar school in May and June had entered the high school; the data showing the distribution of these children by sex and by ages in the grades of the grammar school investigated and in the first year of the high school are given in Table III.

Table I. contains in the vertical columns data for each of the 36 cities and towns mentioned in the column on the left, all the data on a horizontal line referring to the single place at the beginning of that line.

In group I. are given in the successive vertical columns the number of pupils who filled out inquiry cards in the sixth, seventh, eighth and ninth grades of the grammar school, and in the last column of the group is given the total number of these pupils in these grades.

In group II. is given the difference between the number of pupils in the sixth grade and ninth grade, or the total drop in the number of pupils from the sixth to the ninth grades.

In group III. is given the per cent. of pupils that have dropped out between the sixth and the ninth grade, or the per cent. drop from the sixth to the ninth grade.

In group IV. are given in the successive vertical columns the number of pupils in the sixth, seventh, eighth and ninth grades, and the total number of such pupils in these grades who said that they do not expect to graduate from the grammar school.

In group V. are given in the successive vertical columns the number of pupils in the sixth, seventh, eighth and ninth grades, and the total number of such pupils in these grades, who expect to graduate from the grammar school, but will not continue their education farther.

In group VI. are given in the successive vertical columns the number of pupils in the sixth, seventh, eighth and ninth grades, and the total number of such pupils in these grades, who expect to graduate from the grammar school and hope to continue their education.

In group VII. are given the combined totals of groups IV. and V., or the total number who expect to leave school during or upon completion of the grammar school course.

At the foot of the columns are summed up for all¹ these cities and towns the number of pupils in each grade (sixth = 15,877; seventh = 13,502; eighth = 10,863; ninth = 9,058) and the total number in the grades (49,300); the total drop from the sixth to the ninth grade (6,819); the per cent. drop from the sixth to the ninth grade (42.9); the total number in these grades who do not expect to graduate from the grammar school (4,244); the total number in these grades who expect to graduate from the grammar school, but do not expect to continue their education farther (6,958); the total number who expect to go to school beyond the grammar school (38,098); and the total number who expect to drop out of school either during or upon the completion of the grammar school course (11,202).

• The average per cent. drop from the close of the sixth grade to the close of the ninth grade is 42.9, or practically 43 per cent. In other words, at or about fourteen years of age, on an average, 43 per cent. of the children drop out of the last three grades of the grammar schools in cities and towns of 10,000 population and upwards. In 17 of the towns and cities the per cent. drop is more than the average and in 19 it is less than the average.

The places in which the per cent. drop is highest are New Bedford (67.5 per cent.) and Adams (62.6 per cent.); the places in which the per cent. drop is least are South Framingham (19 per cent.), Waltham (28.5 per cent.) and Lowell (29.8 per cent.).

The total number who drop out in the last three years of the grammar school in the 35 cities and towns is 6,819, while the total number who say that they expect to drop out is 4,244; that is, those who expect to drop out are but 62 per cent. of those who do drop out.

¹ Salem not included.

TABLE I. — Data for 36 Cities and Towns, showing the Educational Plans of Pupils in the Sixth, Seventh, Eighth and Ninth Grades of the Grammar Schools.

CITY OR TOWN.	I. — NUMBER OF PUPILS IN GRADES.					II. — Total Drop from Sixth to Ninth Grade	III. — Per Cent Drop from Sixth to Ninth Grade.	IV. — DO NOT EXPECT TO GRADUATE FROM GRAMMAR SCHOOL.					V. — EXPECT TO GRADUATE FROM GRAMMAR SCHOOL, BUT WILL NOT CONTINUE THEIR EDUCATION.					VI. — EXPECT TO GRADUATE FROM GRAMMAR SCHOOL, AND HOPE TO CONTINUE THEIR EDUCATION.					Total in Grades 6-9.	Total in Grades 6-9.
	Grade 6.	Grade 7.	Grade 8.	Grade 9.	Total in Grades 6-9.	Grade 6.	Grade 7.	Grade 8.	Grade 9.	Total in Grades 6-9.	Grade 6.	Grade 7.	Grade 8.	Grade 9.	Total in Grades 6-9.	Grade 6.	Grade 7.	Grade 8.	Grade 9.	Total in Grades 6-9.				
Adams, .	150	114	93	56	413	94	62.6	102	1	112	59	40	102	1	52	73	54	71	51	249	164			
Cambridge, .	1,395	1,094	860	761	4,110	634	45.4	26	5	248	155	62	26	5	780	938	834	671	639	3,082	1,028			
Chicopee, .	198	153	100	93	544	105	53.0	8	-	90	58	24	8	-	66	116	107	83	82	388	156			
Clinton, .	204	170	130	89	593	115	56.3	13	-	99	52	34	13	-	117	105	103	100	69	377	216			
Fall River, .	885	668	532	400	2,485	485	54.8	39	2	440	250	149	39	2	380	473	415	435	342	1,665	820			
Fitchburg, .	308	329	300	201	1,138	107	34.7	22	4	138	55	57	22	4	97	208	243	262	190	903	235			
Gardner, .	132	98	90	80	400	52	39.3	4	9	37	15	9	4	9	64	96	68	77	58	299	101			
Gloucester, .	406	350	256	260	1,272	146	35.9	5	1	49	31	12	5	1	260	283	257	201	222	963	309			
Haverhill, .	483	447	403	306	639	177	36.6	14	8	78	34	22	14	8	233	370	357	329	272	1,328	311			
Leominster, .	209	152	161	118	640	91	43.5	8	5	54	31	10	8	5	75	141	126	136	108	511	129			
Lowell, .	743	755	510	521	2,529	222	29.8	25	16	287	153	93	25	16	420	466	536	387	433	1,822	707			
Lynn, .	919	763	611	475	2,768	444	48.3	20	14	212	126	52	20	14	521	597	546	499	393	2,035	733			
Malden, .	618	582	491	413	2,104	205	33.1	14	3	82	45	20	14	3	330	480	454	410	348	1,692	412			
Marlborough, .	254	168	146	130	698	124	48.8	3	6	54	35	10	3	6	79	195	123	131	116	565	133			
Medford, .	393	335	316	170	1,214	223	56.7	5	2	44	28	9	5	2	180	300	272	265	153	990	224			

TABLE I.—Data for 36 Cities and Towns,—Concluded.

CITY OR TOWN.	I.—NUMBER OF PUPILS IN GRADES.					II.—Total Drop from Sixth to Ninth Grade.		III.—Per Cent. Drop from Sixth to Ninth Grade.		IV.—DO NOT EXPECT TO GRADUATE FROM GRAMMAR SCHOOL.					V.—EXPECT TO GRADUATE FROM GRAMMAR SCHOOL, BUT WILL NOT CONTINUE THEIR EDUCATION.					VI.—EXPECT TO GRADUATE FROM GRAMMAR SCHOOL, AND HOPE TO CONTINUE THEIR EDUCATION.					VII.— Total Combined Grades 6-9.
	Grade 6.	Grade 7.	Grade 8.	Grade 9.	Total in Grades 6-9.	Grade 6.	Grade 7.	Grade 8.	Grade 9.	Total in Grades 6-9.	Grade 6.	Grade 7.	Grade 8.	Grade 9.	Total in Grades 6-9.	Grade 6.	Grade 7.	Grade 8.	Grade 9.	Total in Grades 6-9.					
Melrose,	296	245	230	174	945	122	41.2	8	9	4	5	26	38	15	24	4	81	250	221	202	165	838	107		
Milford,	132	125	90	76	423	56	42.4	30	15	11	-	56	6	16	12	6	40	96	94	67	70	327	96		
Newburyport,	198	171	133	115	617	83	41.9	16	4	6	2	28	27	31	15	12	85	155	136	112	101	504	113		
Newton,	539	436	341	331	1,647	208	36.0	23	10	5	8	46	54	38	20	7	119	462	338	316	316	1,482	165		
New Bedford,	777	490	333	252	1,852	525	67.5	222	126	34	8	390	175	90	46	38	349	380	274	253	206	1,113	739		
North Adams,	250	183	154	129	716	121	48.4	29	21	4	-	54	29	13	11	3	56	192	149	139	126	606	110		
Northampton,	206	209	164	117	696	89	43.2	41	30	10	1	82	27	41	18	5	91	138	138	136	111	523	173		
Pittsfield,	403	294	209	168	1,074	235	58.3	57	30	15	1	103	57	40	25	12	134	289	224	169	155	837	237		
Revere,	302	279	234	192	1,007	110	36.4	14	1	2	1	18	60	31	17	22	130	228	247	215	168	859	148		
Salem, ¹	96	95	162	177	530	-	-	26	13	9	2	50	21	27	20	12	80	49	55	133	163	400	130		
Somerville,	1,122	965	798	736	3,621	386	34.4	83	30	8	4	125	150	167	97	71	485	889	768	693	661	3,011	610		
South Framingham,	168	180	177	136	661	32	19.0	12	8	-	4	24	32	27	25	12	96	124	145	152	120	541	120		
Southbridge,	73	44	38	30	185	43	58.9	19	11	-	-	30	10	3	7	-	20	44	30	31	30	135	50		
Springfield,	959	955	730	625	3,269	334	34.8	133	72	32	14	251	111	125	54	27	317	715	758	644	584	2,701	568		
Taunton,	342	320	255	176	1,093	166	48.5	85	30	12	5	182	52	59	45	18	174	205	231	198	153	787	306		

Wakefield, . . .	232	168	151	136	687	96	41.3	24	11	4	2	41	27	14	11	1	53	181	143	136	133	593	94
Waltham, . . .	291	224	186	208	909	83	28.5	23	12	-	2	37	47	26	22	16	111	221	186	164	190	761	148
Watertown, . . .	149	146	126	92	513	57	38.2	33	3	1	-	37	5	21	15	5	46	111	122	110	87	430	83
Weymouth, . . .	203	180	139	111	633	92	45.3	20	11	4	-	35	48	28	13	8	97	135	141	122	103	501	132
Woburn, . . .	256	240	200	136	832	120	46.8	16	8	7	-	31	31	28	13	6	78	209	204	180	130	723	109
Worcester, . . .	1,682	1,470	1,176	1,045	5,373	637	37.8	328	191	122	33	674	274	239	151	78	742	1,080	1,040	903	934	3,957	1,416
Totals, . . .	15,877	13,502	10,863	9,058	49,300	6,819	42.9	-	-	-	-	4,244	-	-	-	-	6,958	-	-	-	-	23,098	11,202

¹ Not included in totals.

Table II. contains the same data for the named 6 cities and towns that is given in Table I. for 36 cities and towns, except that only the sixth, seventh and eighth grammar school grades are presented, since in these 6 cities and towns there is no ninth grade.

At the foot of the column are summed up for these 6 cities and towns the number of pupils in each grade (sixth = 2,140; seventh = 1,796; eighth = 1,442) and the total number in these grades (5,378); the total drop from the sixth to the eighth grade (698); the per cent. drop from the sixth to the eighth grade (32.6); the total number in these grades who do not expect to graduate from the grammar school (351); the total number in these grades who expect to graduate from the grammar school, but do not expect to continue their education farther (832); the total number who expect to go to school beyond the grammar school (4,195); and the total number who expect to drop out of school either during or upon the completion of the grammar school course (1,183).

TABLE II. — Data for 6 Cities and Towns (having no Ninth Grades in the Grammar School), showing the Educational Plans of Pupils in the Sixth, Seventh and Eighth Grades.

CITY OR TOWN.	I. — NUMBER OF PUPILS IN GRADES.				II. — Total Drop from Sixth to Fifth Grade.	III. — Per Cent. Drop from Sixth to Eighth Grade.	IV. — Do NOT EXPECT TO GRADUATE FROM GRAMMAR SCHOOL.				V. — EXPECT TO GRADUATE FROM GRAMMAR SCHOOL, BUT WILL NOT CONTINUE THEIR EDUCATION.				VI. — EXPECT TO GRADUATE FROM GRAMMAR SCHOOL, AND HOPE TO CONTINUE THEIR EDUCATION.				VII. — Combined Total of IV, V, and VI.
	Grade 6.	Grade 7.	Grade 8.	Total in Grades 6-8.			Grade 6.	Grade 7.	Grade 8.	Total in Grades 6-8.	Grade 6.	Grade 7.	Grade 8.	Total in Grades 6-8.	Grade 6.	Grade 7.	Grade 8.	Total in Grades 6-8.	
Attleborough,	171	167	127	465	44	25.7	10	10	2	22	49	30	16	95	112	127	109	348	117
Beverly,	271	251	175	697	96	35.4	19	5	3	27	33	35	6	74	219	211	166	596	101
Hyde Park,	151	154	152	457	—1	-	-	4	2	6	20	17	17	54	131	133	133	397	60
Lawrence,	791	565	417	1,773	374	47.2	141	48	7	196	182	119	59	358	470	398	351	1,219	554
Prabody,	196	154	120	470	76	38.7	20	8	3	31	32	10	8	50	144	136	109	389	81
Quincy,	560	505	451	1,516	109	19.4	35	19	15	69	98	61	42	201	427	425	394	1,246	270
Totals,	2,140	1,796	1,442	5,378	698	32.6	-	-	-	351	-	-	-	832	-	-	-	4,195	1,183

Table III. gives the number of pupils who filled out inquiry cards in the sixth, seventh, eighth and ninth grades in Lynn, Springfield and Worcester, and the sixth, seventh and eighth grades in Lawrence;¹ and, for all four cities, those pupils in the highest grade of the grammar school in June, 1908, who registered in the first year of the high school in the next school year.²

The data given in Table III. for each city are arranged in two sections, — a general table and a summary.

In the general table, column 1 shows the grades and year in the high school; column 2 gives the divisions of boys and girls and totals of boys and girls; the following columns show the number of boys and girls and totals of boys and girls from thirteen years up in each grade (13 — means less than thirteen years of age); and the last column shows the total number of boys and girls and totals of boys and girls for each grade.

In the summary are given the total number of boys and girls and the combined totals for each grade; the total drop in the number of both boys and girls and the combined total drop from the sixth grade of the grammar school to the first year in the high school; and the per cent. drop for both boys and girls and the combined per cent. drop from the sixth grade of the grammar school to the first year in the high school. For additional statements, see page 81.

¹ Lawrence has no ninth grade in the grammar school.

² In Springfield and Worcester promotions are also made at the middle of the school year and pupils so promoted are included in these data.

TABLE III. — *Data for 4 Cities, showing the Number of Pupils in the Sixth, Seventh, Eighth and Ninth¹ Grades of the Grammar School and reappearing in the Following Year in the First Year of the High School.*

LAWRENCE.

GRADE.	Pupils.	TOTAL PUPILS, DISTRIBUTED BY AGES.										
		13—	13	14	15	16	17	18	19	20	20+	Totals.
Sixth,	Boys,	173	134	89	14	8	1	—	—	—	—	419
	Girls,	217	93	52	10	—	—	—	—	—	—	372
	Totals,	390	227	141	24	8	1	—	—	—	—	791
	Grand total, all ages,											791
Seventh,	Boys,	65	89	85	30	6	—	1	—	—	—	276
	Girls,	58	118	84	24	3	1	—	—	1	—	289
	Totals,	123	207	169	54	9	1	1	—	1	—	565
	Grand total, all ages,											565
Eighth,	Boys,	2	57	77	47	11	6	2	—	—	—	202
	Girls,	5	56	88	43	18	4	1	—	—	—	215
	Totals,	7	113	165	90	29	10	3	—	—	—	417
	Grand total, all ages,											417
Ninth,	Boys,	Part of High School.										
	Girls,											
	Totals,											
First year of high school,	Boys,	2	48	44	17	6	1	—	—	—	—	118
	Girls,	5	47	48	23	9	1	1	—	—	—	134
	Totals,	7	95	92	40	15	2	1	—	—	—	252
	Grand total, all ages,											252
	Total drop,											539

Summary.

	Boys.	Girls.	Totals.
Total number in grade 6,	419	372	791
Total number in grade 7,	276	289	565
Total number in grade 8,	202	215	417
Number reappearing in the first year of high school,	118	134	252
Total drop from sixth grade to first year of high school,	301	238	539
Per cent. drop,	71.8	63.9	68.1

¹ Except for Lawrence, which has only eight grammar school grades.

TABLE III. — Data for 4 Cities, etc. — Continued.
LYNN.

GRADE.	Pupils.	TOTAL PUPILS, DISTRIBUTED BY AGES.										
		12—	13	14	15	16	17	18	19	20	20+	Totals.
Sixth,	Boys,	227	120	90	39	5	—	1	—	—	—	482
	Girls,	200	90	54	17	7	—	—	—	—	—	437
	Totals,	496	210	144	56	12	—	1	—	—	—	919
	Grand total, all ages,											919
Seventh,	Boys,	80	110	110	56	12	3	—	—	—	—	371
	Girls,	104	131	101	39	15	1	1	—	—	—	392
	Totals,	184	241	211	95	27	4	1	—	—	—	763
	Grand total, all ages,											763
Eighth,	Boys,	11	89	88	72	29	11	—	—	1	—	301
	Girls,	12	103	100	69	22	4	—	—	—	—	310
	Totals,	23	192	188	141	51	15	—	—	1	—	611
	Grand total, all ages,											611
Ninth,	Boys,	2	15	70	67	54	15	3	—	—	—	226
	Girls,	2	9	84	93	48	12	1	—	—	—	249
	Totals,	4	24	154	160	102	27	4	—	—	—	475
	Grand total, all ages,											475
First year of high school,	Boys,	2	14	55	40	28	6	2	—	—	—	147
	Girls,	1	6	60	64	25	4	—	—	—	—	160
	Totals,	3	20	115	104	53	10	2	—	—	—	307
	Grand total, all ages,											307
Total drop,											612	

Summary.

	Boys.	Girls.	Totals.
Total number in grade 6,	482	437	919
Total number in grade 7,	371	392	763
Total number in grade 8,	301	310	611
Total number in grade 9,	226	249	475
Number reappearing in the first year of high school,	147	160	307
Total drop from sixth grade to first year of high school,	335	277	612
Per cent. drop,	69.5	63.3	66.5

TABLE III. — *Data for 4 Cities, etc.* — Continued.

SPRINGFIELD.

GRADE.	Pupils.	TOTAL PUPILS, DISTRIBUTED BY AGES.										
		13—	13	14	15	16	17	18	19	20	20+	Totals.
Sixth,	Boys,	292	132	79	24	3	—	—	—	—	—	530
	Girls,	266	87	56	15	5	—	—	—	—	—	429
	Totals,	558	219	135	39	8	—	—	—	—	—	959
	Grand total, all ages,											959
Seventh,	Boys,	133	173	120	48	15	3	—	—	—	—	492
	Girls,	137	151	116	47	12	—	—	—	—	—	463
	Totals,	270	324	236	95	27	3	—	—	—	—	955
	Grand total, all ages,											955
Eighth,	Boys,	19	76	125	89	33	11	—	—	—	—	353
	Girls,	21	104	134	88	23	6	1	—	—	—	377
	Totals,	40	180	259	177	56	17	1	—	—	—	730
	Grand total, all ages,											730
Ninth,	Boys,	3	38	75	98	69	16	7	—	—	—	306
	Girls,	3	24	95	105	66	26	4	—	—	—	323
	Totals,	6	62	170	203	135	42	11	—	—	—	629
	Grand total, all ages,											629
First year of high school,	Boys,	3	31	63	73	41	9	4	—	—	—	224
	Girls,	2	22	75	75	41	21	—	—	—	—	236
	Totals,	5	53	138	148	82	30	4	—	—	—	460
	Grand total, all ages,											460
Total drop,											499	

Summary.

	Boys.	Girls.	Totals.
Total number in grade 6,	530	429	959
Total number in grade 7,	492	463	955
Total number in grade 8,	353	377	730
Total number in grade 9,	306	323	629
Number reappearing in the first year of high school,	224	236	460
Total drop from sixth grade to first year of high school,	306	193	499
Per cent. drop,	57.7	44.9	52.5

TABLE III. — *Data for 4 Cities, etc.* — Concluded.

WORCESTER.

GRADE.	Pupils.	TOTAL PUPILS, DISTRIBUTED BY AGES.										
		12—	13	14	15	16	17	18	19	20	20+	Totals.
Sixth,	Boys,	513	196	119	23	3	—	—	—	—	—	854
	Girls,	551	162	81	25	3	6	—	—	—	—	828
	Totals,	1,064	358	200	48	6	6	—	—	—	—	1,682
	Grand total, all ages,											1,682
Seventh,	Boys,	270	252	178	60	11	—	1	—	—	—	772
	Girls,	283	217	152	35	10	—	1	—	—	—	698
	Totals,	553	469	330	95	21	—	2	—	—	—	1,470
	Grand total, all ages,											1,470
Eighth,	Boys,	68	161	200	115	25	6	—	—	—	—	575
	Girls,	62	201	215	94	23	5	1	—	—	—	601
	Totals,	130	362	415	209	48	11	1	—	—	—	1,176
	Grand total, all ages,											1,176
Ninth,	Boys,	8	53	172	162	70	19	1	—	—	1	486
	Girls,	12	77	199	181	72	14	3	1	—	—	559
	Totals,	20	130	371	343	142	33	4	1	—	1	1,045
	Grand total, all ages,											1,045
First year of high school,	Boys,	6	31	98	84	32	6	—	—	—	1	258
	Girls,	5	49	116	107	33	5	—	—	—	—	315
	Totals,	11	80	214	191	65	11	—	—	—	1	573
	Grand total, all ages,											573
	Total drop,											1,109

Summary.

	Boys.	Girls.	Totals.
Total number in grade 6,	854	828	1,682
Total number in grade 7,	772	698	1,470
Total number in grade 8,	575	601	1,176
Total number in grade 9,	486	559	1,045
Number reappearing in the first year of high school,	258	315	573
Total drop from sixth grade to first year of high school,	596	513	1,109
Per cent. drop,	69.8	61.9	65.9

APPENDIX D.

TABULAR PRESENTATION OF THE SPECIAL INVESTIGATIONS AMONG PARENTS OF PUPILS OF INDUSTRIAL SCHOOL AGE IN THE SIXTH, SEVENTH, EIGHTH AND NINTH GRADES OF GRAMMAR SCHOOLS IN LAWRENCE,¹ LYNN, SPRINGFIELD AND WORCESTER, TO ASCERTAIN THE ATTITUDE OF THE PARENTS TOWARD INDUSTRIAL EDUCATION.

A special investigation was made in the 4 manufacturing cities of Lynn, Lawrence, Springfield and Worcester, during the summer of 1908, in which many of the parents of the children in the upper grades of the grammar schools were visited personally by special agents appointed by the commission, and asked to express their views in regard to the establishment of a local industrial school. A brief account of this investigation has been given in the body of the report, on page 83.

The families interviewed in each of the 4 cities covered in this investigation are divided into two groups. The first group is contained in Table I., which shows the attitude of those families in which the father's employment could be characterized as a trade; this table also shows the manner in which the technical knowledge necessary to the trade was acquired by the parent.

In Table I., the first column contains the classification into trades of the persons interviewed; the second, third and fourth columns contain the number who had acquired their trade through apprenticeship (second column), through "picking up" (third column), and through trade school instruction (fourth

¹ Sixth, seventh and eighth grades in Lawrence, there being no ninth grade.

column). The fifth, sixth and seventh columns show the attitude of the persons interviewed towards a local industrial school: column 5, the number favorable to such a school; column 6, the number without interest; and column 7, the number opposed. Column 8 gives the total number of persons interviewed. The ninth, tenth and eleventh columns contain the number of the children of industrial school age in the families interviewed: column 9, the number of boys; column 10, the number of girls; and column 11, the total number of boys and girls. The totals for each column are given at the foot of the column.

The second group, contained in Table II., embraces the remaining families interviewed, in which the fathers' occupations were of a more general nature, although perhaps requiring a specific training or a liberal education. Both tables show the number of boys and girls included in these families of an age suitable to industrial education.

In Table II., the first column contains the classification of the persons interviewed according to callings. The second, third and fourth columns show the attitude of the persons interviewed towards a local industrial school: column 2, the number favorable; column 3, the number without interest; and column 4, the number opposed. Column 5 gives the total number interviewed. The sixth, seventh and eighth columns show the number of children of industrial school age in the families interviewed: column 6, the number of boys; column 7, the number of girls, and column 8, the total number of children. At the foot of each column are given the totals for the column, the total for the corresponding column of Table I., and the sum of these totals for the two tables.

LAWRENCE.

In Lawrence, only those parents and guardians of pupils thirteen years of age and over, in the sixth, seventh and eighth grammar grades in May and June of 1908, that did not expect to attend high school, were visited.

These embraced 467 families, representing 447 boys and 377 girls, a total of 824. Of the entire 467 families, 438, or 93.7 per cent., were found favorable to the establishment of an industrial school for the boys and girls of Lawrence; 27, or 6.3

per cent., for various reasons were not interested; and only 2 were opposed to such a school.

Of the 467 families included in this investigation, 258 were engaged in occupations requiring technical training to a greater or less degree, including the trades; of whom 110, or 42 per cent., had served apprenticeships, 49 in foreign countries, 61 in the United States; 136, or 53 per cent., had gathered what information and skill they could, without systematic training; 12, or 5 per cent., attended trade schools in foreign countries; 241, or 93 per cent., favored the establishment of a trade school for boys and girls in Lawrence, those manifesting no interest numbering but 17. In these 258 families there were 260 boys and 202 girls, making a total of 462 youths to whom the benefits of an industrial education should prove of special value.

Of the parents and guardians, 105 were engaged in the textile industry, of whom 29 served apprenticeships; and, as this method of teaching is becoming rare, it is interesting to note that 24 served their time in foreign countries, 19 in Germany and 5 in England. Of the 8 in this industry that had attended trade schools, 7 were former pupils of German schools and 1 had been a pupil in Scotland. Of those who "picked up" their trade, 68, or exactly one-half of the number, were textile workers. Of the 462 youths in the 258 families of experienced trade workers, 191, or 41.3 per cent., were in the families of skilled textile workers.

The heads of 209 of the families interviewed were engaged in various other occupations, some of which required talent and education distinct and separate from technical training, and others called for merely mechanical labor; 197, or 94 per cent., were favorable to industrial education, and but 12, or 6 per cent., expressed no interest. These families included 187 boys and 175 girls of industrial school age, making 362 possible candidates for industrial education. Of this number, 139 were in the families of those employed in unskilled labor.

TABLE I. — Attitude of Parents or Guardians, now engaged in Occupations requiring Technical Skill, toward the Establishment of a Local Industrial School; also, the Means by which a Trade was acquired.

LAWRENCE.

CLASSIFICATION.	TRADE ACQUIRED BY —			ATTITUDE TOWARD A LOCAL INDUSTRIAL SCHOOL.				MEMBERS OF FAMILIES OF AN INDUSTRIAL SCHOOL AGE.		
	Apprentice-ship.	"Picked Up."	Trade Schools.	Favorable.	Without Interest.	Opposed.	Totals.	Boys.	Girls.	Totals.
Bakers, cooks and confectioners,	2	3	—	5	—	—	5	9	3	12
Barbers,	2	—	—	2	—	—	2	2	1	3
Blacksmiths,	3	1	—	4	—	—	4	4	3	7
Carpenters,	17	3	—	19	—	1	20	19	13	32
Dyers,	—	4	—	4	—	—	4	3	2	5
Foremen and overseers,	2	8	—	9	1	—	10	5	14	19
Engineers and firemen,	4	17	—	21	—	—	21	20	20	40
Machinists,	18	5	—	23	—	—	23	23	17	40
Masons,	2	1	—	3	—	—	3	6	—	6
Moulders,	7	3	—	9	1	—	10	7	7	14
Painters and paper hangers,	4	6	—	8	2	—	10	10	6	16
Plumbers and fitters,	2	—	—	1	—	1	2	3	—	3
Printers,	3	—	—	3	—	—	3	2	1	3
Skilled employees in the manufacture of: —										
Boots and shoes,	3	1	—	4	—	—	4	6	2	8
Paper,	1	5	1	6	1	—	7	12	7	19
Textiles,	29	68	8	96	9	—	105	102	89	191
Miscellaneous,	8	11	2	20	1	—	21	26	14	40
Tailors,	3	—	1	4	—	—	4	1	3	4
Totals,	110 ¹	136	12	241	15	2	258	260	202	462

¹ Of the 110 who served apprenticeships, 49 served their time in foreign countries.

TABLE II. — *Attitude of Parents or Guardians, in General Occupations, toward the Establishment of a Local Industrial School.*
LAWRENCE.

CLASSIFICATION.	ATTITUDE TOWARD A LOCAL INDUSTRIAL SCHOOL.				MEMBERS OF FAMILIES OF AN INDUSTRIAL SCHOOL AGE.		
	Favorable.	Without Interest.	Opposed.	Totals.	Boys.	Girls.	Totals.
Agents, buyers and salesmen,	16	1	—	17	22	12	34
Bookkeepers, clerks and stenographers,	4	—	—	4	2	4	6
Janitors and watchmen,	6	—	—	6	3	9	12
Laborers,	19	1	—	20	20	16	36
Merchants and dealers,	11	—	—	11	5	14	19
Mill operatives,	49	5	—	54	53	50	103
Police, fire and postal service,	7	1	—	8	3	9	12
Professional service,	3	—	—	3	2	2	4
Railroad and railway employees,	11	—	—	11	8	6	14
Teamsters and hucksters,	18	—	—	18	19	7	26
Unclassified,	12	3	—	15	10	16	26
Widows, etc. (occupations unclassified),	41	1	—	42	40	30	70
Totals,	197	12	—	209	187	175	362
Totals for Table I.,	241	15	2	258	260	202	462
Totals for both tables,	438	27	2	467	447	377	824

LYNN.

In Lynn were visited parents or guardians of children of industrial school age attending the parochial schools, as well as of those in the sixth, seventh, eighth and ninth grammar grades of the public schools, who had reported that they did not expect to continue their education through or beyond the grammar school, together with those parents who were engaged in the shoe industry, and whose children might enter it after a longer general course in education, as well as those parents whose occupation or the personal knowledge of whom gave reason to believe that their children would probably be sent to a trade school, notwithstanding any statement of the children regarding their expectancy to attend the high school. A total of 2,164 families was visited.

The total number of children in these families eligible to the benefits to be derived from an industrial school, if one were established in Lynn, was 3,301; 1,718 boys and 1,583 girls.

The sentiment regarding vocational training in Lynn appears to have been very favorable, and, although a greater number (30) than in the other cities expressed themselves opposed to industrial education, the 2,069, or 96 per cent., who were favorable, showed an interest approaching enthusiasm, while only 65, or 3 per cent., manifested no interest in the subject.

The heads of 1,340 families were skilled workmen; of these, 551, or 41 per cent., had learned their trade by apprenticeship; 779, or 58 per cent., "picked up" their trade; and 10 attended either a foreign trade school or private institution. Of the 551 who had served apprenticeships, 161, or 29 per cent., served their time in foreign countries.

Of the above, 564 were engaged in the manufacture of boots and shoes, 115, or 20 per cent., of whom had served apprenticeships, 42 in foreign countries and the remaining 73 in the United States, 441 had worked themselves into this industry, advancing from one branch of the work to the next, as the increase in skill and the output of the goods permitted. There were only five who had either attended a local private shoe school or a foreign trade school.

In Lynn special inquiries were made as regards the manner

in which these men had acquired their technical knowledge and skill.

Other important industries in Lynn are the manufacture of leather and metals and metallic goods; 93 persons employed in the former and 63 in the latter were visited. In the leather industry, 54, or 56 per cent., had served apprenticeships; in the manufacture of metals and metallic goods, only 13, or 20 per cent., had served apprenticeships.

Excluding the 741 skilled employees in the manufacture of boots and shoes, leather, metals, etc., only 193, or 26 per cent., of whom served time learning their craft, it was found that of the remaining families, more strictly classed as trade workers, 358, or 60 per cent., had served apprenticeships.

The relative amount of interest shown in the question of the need of an industrial school in Lynn did not vary greatly in the different trades: 1,279, or 95 per cent., of the 1,340 skilled employees and trade workers expressed themselves as decidedly in favor of establishing a school where boys and girls could learn a trade thoroughly; 33, or 2 per cent., were not interested; and only 28, or 2 per cent., were opposed to the movement.

Of the 824 families in Lynn engaged in various other occupations, 790, or 95.8 per cent., favored the establishment of an industrial school; 32 were not interested; and 2 were opposed. There were 1,293 members of these families of an industrial school age, 721 boys and 572 girls.

TABLE I. — Attitude of Parents or Guardians, now engaged in Occupations requiring Technical Skill, toward the Establishment of a Local Industrial School; also, the Means by which a Trade was acquired.

LYNN.

CLASSIFICATION.	TRADE ACQUIRED BY —			ATTITUDE TOWARD A LOCAL INDUSTRIAL SCHOOL.				MEMBERS OF FAMILIES OF AN INDUSTRIAL SCHOOL AGE.		
	Apprentice-ship.	"Picked Up."	Trade Schools.	Favorable.	Without Interest.	Opposed.	Totals.	Boys.	Girls.	Totals.
Bakers, cooks and confectioners,	11	6	—	16	1	—	17	10	16	26
Barbers,	11	11	—	19	3	—	22	21	13	34
Blacksmiths,	17	4	—	19	1	1	21	19	13	32
Cabinet and pattern makers,	7	4	—	10	—	1	11	8	7	15
Carpenters,	65	29	—	87	3	4	94	63	73	136
Electricians,	9	6	—	15	—	—	15	15	6	21
Engineers and firemen,	21	20	1	42	—	—	42	28	33	61
Machinists,	102	87	1	189	—	1	190	141	145	286
Masons,	22	13	—	32	1	2	35	22	35	57
Moulders,	20	10	1	31	—	—	31	20	21	41
Painters and paper hangers,	18	22	—	40	—	—	40	23	31	54
Plumbers and fitters,	22	6	—	28	—	—	28	22	19	41
Printers, publishers and bookbinders,	11	6	—	19	—	—	19	18	11	29
Skilled employees in the manufacture of:—										
Boots and shoes,	115	444	5	527	20	17	564	413	413	826
Leather,	54	43	—	92	3	2	97	83	92	175
Metals and metallic goods,	13	48	2	63	—	—	63	56	45	101
Miscellaneous,	11	16	—	26	1	—	27	15	21	36
Tailors,	22	2	—	24	—	—	24	20	17	37
Totals,	551 ¹	779	10	1,279	33	28	1,340	997	1,011	2,008

¹ Of the 551 who served apprenticeships, 161 were apprenticed in foreign countries.

TABLE II. — *Attitude of Parents or Guardians, in General Occupations, toward the Establishment of a Local Industrial School.*

LYNN.

CLASSIFICATION.	ATTITUDE TOWARD A LOCAL INDUSTRIAL SCHOOL.				MEMBERS OF FAMILIES OF AN INDUSTRIAL SCHOOL ADM.		
	Favorable.	Without Interest.	Opposed.	Totals.	Boys.	Girls.	Totals.
.	65	2	1	68	67	33	100
.	3	—	—	3	2	1	3
.	45	1	—	46	59	17	76
.	13	1	—	14	10	9	19
.	36	3	—	39	53	34	87
.	17	—	—	17	14	11	25
.	17	3	—	20	17	23	40
.	104	6	—	110	92	79	171
.	23	1	—	24	26	10	36
.	39	2	—	41	47	27	74
.	14	1	—	15	11	9	20
.	36	1	—	37	28	25	53
.	8	1	—	9	9	7	16
.	20	—	—	20	7	20	27
.	30	—	—	30	25	22	47
.	100	—	—	100	80	71	151
.	17	1	—	18	21	23	44
.	203	9	1	213	153	151	304
Totals,	790	33	3	824	721	572	1,293
Totals for Table I.,	1,379	33	28	1,340	997	1,011	2,008
Totals for both tables, . . .	2,069	65	30	2,164	1,718	1,583	3,301

SPRINGFIELD.

In Springfield, as in Lawrence, only the parents of those pupils thirteen years of age or over who had no expectation of completing the grammar school course as well as those who did not expect to attend school after the grammar course was finished, were visited. As this city is not devoted to any preponderating industry, such as the manufacture of boots and shoes, as in Lynn, or of textiles, as in Lawrence, it was found that the occupations of the 501 families interviewed were fairly well scattered among the various branches. There was a total of 788 children, 430 boys and 358 girls, in these 501 families.

Of those interviewed in Springfield, 456, or 91 per cent., favored the principles and aims of industrial education; 45, or 9 per cent., were not interested, and none expressed decided opposition.

About one-half (249) were engaged in occupations requiring technical skill. Of these, 136, or 55 per cent., had acquired their trade by apprenticeships, of whom 75, or 55 per cent., served their time in foreign countries; the remaining 113, or 45 per cent., had "picked up" their trades. Of these skilled workmen, 233, or 94 per cent., favored the establishment of industrial schools; 16 were indifferent. There were 208 girls and 192 boys, a total of 400 members of these families of an industrial school age.

Of the remaining 252 families, heads of which were engaged in occupations not to be specially characterized as trades, 223, or 88 per cent., favored the idea of giving boys and girls a vocational training; 29 were without interest. In these families there were 222 boys and 166 girls; a total of 388 of an industrial school age.

TABLE I. — Attitude of Parents or Guardians, now engaged in Occupations requiring Technical Skill, toward the Establishment of a Local Industrial School; also, the Means by which a Trade was acquired.

SPRINGFIELD.

CLASSIFICATION.	TRADE ACQUIRED BY --			ATTITUDE TOWARD A LOCAL INDUSTRIAL SCHOOL.				MEMBERS OF FAMILIES OF AN INDUSTRIAL SCHOOL AGE.		
	Apprentice-ship.	"Picked Up."	Trade Schools.	Favorable.	Without Interest.	Opposed.	Totals.	Boys.	Girls.	Totals.
Bakers, cooks and confectioners, . . .	4	3	-	5	2	-	7	4	3	7
Barbers, . . .	4	8	-	10	2	-	12	8	9	17
Blacksmiths, . . .	8	1	-	8	1	-	9	9	6	15
Cabinet and pattern makers, . . .	5	3	-	8	-	-	8	7	6	13
Carpenters, . . .	10	15	-	22	3	-	25	18	24	42
Machinists, . . .	19	19	-	38	-	-	38	35	34	69
Masons, . . .	7	-	-	7	-	-	7	3	8	11
Moulders, . . .	6	2	-	7	1	-	8	12	4	16
Painters and paper hangers, . . .	15	11	-	24	2	-	26	20	25	45
Plumbers and fitters, . . .	2	1	-	2	1	-	3	2	2	4
Printers, . . .	7	-	-	7	-	-	7	7	4	11
Skilled employees in the manufacture of: --										
Arms and tools, . . .	6	15	-	20	1	-	21	14	16	30
Boots and shoes, . . .	8	-	-	7	1	-	8	10	4	14
Cigars, . . .	7	1	-	8	-	-	8	5	7	12
Metals and metallic goods, . . .	6	6	-	12	-	-	12	10	10	20
Miscellaneous, . . .	6	19	-	24	1	-	25	21	13	34
Stone, . . .	1	4	-	4	1	-	5	7	3	10
Wooden goods, . . .	3	4	-	7	-	-	7	5	3	8
Tailors, . . .	12	1	-	13	-	-	13	11	11	22
Totals, . . .	136 ¹	113	-	233	16	-	249	208	192	400

¹ Of the 136 who served apprenticeships, 75 served their time in foreign countries.

TABLE II. — Attitude of Parents or Guardians, in General Occupations, toward the Establishment of a Local Industrial School.
SPRINGFIELD.

CLASSIFICATION.	ATTITUDE TOWARD A LOCAL INDUSTRIAL SCHOOL.				MEMBERS OF FAMILIES OF AN INDUSTRIAL SCHOOL AGE.		
	Favorable.	Without Interest.	Opposed.	Totals.	Boys.	Girls.	Totals.
Agents, buyers and salesmen,	17	1	—	18	17	15	32
Bookkeepers, clerks and stenographers,	11	1	—	12	11	8	19
Domestic service,	11	—	—	11	8	7	15
Druggists, butchers and grocers,	13	1	—	14	12	10	22
Farmers, gardeners and florists,	6	2	—	8	6	5	11
Janitors and watchmen,	2	1	—	3	2	1	3
Laborers,	31	12	—	43	45	24	69
Manufacturers,	4	—	—	4	7	1	8
Merchants and dealers,	12	—	—	12	17	6	23
Police, fire and postal service,	4	—	—	4	2	2	4
Railroad and railway employees,	21	—	—	21	20	18	38
Teamsters and hucksters,	24	4	—	28	16	13	29
Unclassified,	7	—	—	7	4	6	10
Widows, etc. (occupations unclassified),	60	7	—	67	55	50	105
Totals,	223	29	—	252	222	166	388
Totals for Table I.,	233	16	—	249	208	192	400
Totals for both tables,	456	45	—	501	430	358	788

WORCESTER.

The investigation in Worcester was more extensive than in the 3 other cities, as the parents and guardians of all the children in the sixth, seventh, eighth and ninth grades of the grammar school were interviewed, and a report was also included for the brothers and sisters of industrial school age, of those in school. In all, there were 3,697 families visited, in which there were 2,560 boys and 2,509 girls, a total of 5,069. Of the 3,697 families visited, 3,303, or 89 per cent., favored the establishment of a trade school in Worcester; 390, or 11 per cent., manifested no interest; and only 4 were opposed.

The heads of 1,791 of these families were skilled workers, 677, or 38 per cent., of whom served apprenticeships; and of these, 195, or 29 per cent., served their time in foreign countries; 1,097, or 61 per cent., acquired a trade without systematic training, and 17, or 1 per cent., had received an industrial education in a foreign country or private institution.

If there are excluded from the above classification the 623 skilled employees in manufactures and the 116 engineers and firemen, occupations in which it has for years been a practice in this country to start at a low wage and gradually work into the more complicated and skilled branches of the work, there remain 1,052; and it is of interest to note that of these latter, 551, or nearly 52 per cent., had been apprenticed.

Of the 1,791 trained trade workers, 1,611, or 90 per cent., were favorable to the establishment of a school where a trade could be learned in all its details; 178, or 10 per cent., were indifferent to the subject; only 2 were opposed. In these families there were 1,216 boys and 1,146 girls; a total of 2,362.

Concerning the 1,906 families the heads of which were engaged in miscellaneous occupations, it was found that 1,692, or 89 per cent., favored industrial school education; 212, or 11 per cent., were indifferent; and only 2 were opposed. These families included 1,344 boys and 1,363 girls, 2,707 in all, eligible to industrial training if such were provided.

TABLE I. — Attitude of Parents or Guardians, now engaged in Occupations requiring Technical Skill, toward the Establishment of a Local Industrial School; also, the Means by which a Trade was acquired.

WORCESTER.

CLASSIFICATION.	TRADE ACQUIRED BY —			ATTITUDE TOWARD A LOCAL INDUSTRIAL SCHOOL.				MEMBERS OF FAMILIES OF AN INDUSTRIAL SCHOOL AGE.		
	Apprentice-ship.	"Picked Up."	Trade Schools.	Favorable.	Without Interest.	Opposed.	Totals.	Boys.	Girls.	Totals.
Bakers, cooks and confectioners,	13	22	—	33	2	—	35	26	21	47
Barbers,	10	9	—	16	3	—	19	17	15	32
Blacksmiths,	33	11	—	41	3	—	44	38	34	72
Cabinet and pattern makers	40	40	—	71	9	—	80	18	22	40
Carpenters,	94	81	—	160	15	—	175	139	124	263
Electricians,	3	11	3	17	—	—	17	11	9	20
Engineers and firemen,	6	102	8	103	13	—	116	51	80	131
Machinists,	182	183	2	344	23	—	367	262	267	529
Masons,	30	13	—	38	5	—	43	28	29	57
Moulders,	67	20	—	82	5	—	87	75	53	128
Painters and paper hangers,	23	41	—	59	5	—	64	57	37	94
Plumbers and fitters,	21	14	—	33	2	—	35	30	25	55
Printers, publishers and bookbinders,	25	18	—	41	2	—	43	29	31	60
Skilled employees in the manufacture of: —										
Arms and tools,	8	39	—	38	8	1	47	30	28	58
Boots and shoes,	9	33	—	40	2	—	42	37	30	67
Dyestuffs,	10	17	—	24	3	—	27	16	22	38
Emery wheels,	—	16	—	7	9	—	16	10	13	23
Leather and leather goods,	1	31	—	27	5	—	32	22	18	40
Metals and metallic goods,	18	230	8	206	45	—	251	208	162	370
Miscellaneous,	11	60	—	65	6	—	71	46	49	95
Paper and paper goods,	1	12	—	12	1	—	13	9	8	17
Stone,	18	9	—	23	3	1	27	15	21	36
Textiles,	25	72	—	92	5	—	97	17	16	33
Tailors,	29	13	1	39	4	—	43	25	32	57
Totals,	677 ¹	1,097	17	1,611	178	2	1,791	1,216	1,146	2,362

¹ Of the 677 who served apprenticeships, 195 were apprenticed in foreign countries.

TABLE II. — *Attitude of Parents or Guardians, in General Occupations, toward the Establishment of a Local Industrial School.*

WORCESTER.

CLASSIFICATION.	ATTITUDE TOWARD A LOCAL INDUSTRIAL SCHOOL.				MEMBERS OF FAMILIES OF AN INDUSTRIAL SCHOOL AGE.		
	Favorable.	Without Interest.	Opposed.	Totals.	Boys.	Girls.	Totals.
Manufacturers.	174	26	-	200	123	182	305
Merchants.	11	1	-	12	9	11	20
Professors.	118	14	1	133	89	83	172
Physicians.	40	7	-	47	26	30	56
Teachers.	74	6	-	80	67	59	126
Tradesmen.	49	4	-	53	36	38	74
Unemployed.	97	13	1	111	85	81	166
Wagesmen.	66	8	-	74	58	48	106
Wholesale and Retail Dealers.	122	27	-	149	107	122	229
Others.	34	1	-	35	28	18	46
Students.	101	19	-	120	82	91	173
Unidentified.	82	12	-	94	64	54	118
Unemployed.	60	3	-	63	54	61	105
Unemployed.	62	-	-	62	46	38	84
Unemployed.	87	8	-	95	60	74	134
Unemployed.	20	1	-	21	18	13	31
Unemployed.	152	29	-	181	132	127	259
Unemployed.	7	1	-	8	9	1	10
Unemployed.	18	4	-	22	18	13	31
Unemployed.	309	28	-	337	233	229	462
Totals.	1,692	212	2	1,906	1,344	1,363	2,707
Totals for Table I.	1,611	178	2	1,791	1,216	1,146	2,362
Totals for both tables.	3,303	390	4	3,697	2,560	2,509	5,069

APPENDIX E.

LECTURE NOTES PREPARED FOR INDUSTRIAL SCHOOLS UNDER THE COMMISSION.

The most complete notes which have been prepared are those in use by the various instructors at the Lawrence, Cambridge and Brockton schools. Printed copies of these notes are circulated among the pupils, so that each may have a copy, not only for following the instructor in his demonstration, but also to serve as a guide in home study.

LECTURE NOTES PREPARED FOR THE INDUSTRIAL SCHOOL IN LAWRENCE.

Notes for the Lawrence school include: —

Notes on industrial arithmetic, in which a review is made of decimal fractions and square root: with applications to machine shop work.

Notes on mill arithmetic, which cover addition, subtraction, multiplication and division; fractions, — addition, subtraction, multiplication and division; decimal fractions, — addition, subtraction, multiplication and division; ratio and proportion, — simple proportion or rule of three, compound proportion; average and percentage; textile calculations.

Notes on arithmetic for engineers and firemen include addition, subtraction, multiplication and division; tables of measure; fractions, — addition, subtraction, multiplication and division.

Notes on commercial electricity. — Part I. of this course begins with the definitions of a few of the more common electrical terms, and takes up in succession Ohm's law in a variety of applications; current and parallel circuits; properties of wire; units used in wire calculations; the Brown and Sharpe wire tables and examples. Part II. continues with the definitions of the units of quantity, work and power, and examples showing their application (continued).

The notes on designing embrace: rib weaves; warp effects; filling effect rib weaves; fancy warp effect rib weaves; fancy filling effect rib weaves; oblique rib weaves; rib weaves with interwoven back; method of stitching warp threads in filling rib effects; adding special

warp threads to strengthen the fabric; corded effects; corkscrews and double twills; construction of woven fabrics; setting cloths; backed cloths: cloths backed with filling and cloths backed with warp (continued).

Notes for the cotton-spinning course cover the cotton plant and its classification; cotton-growing countries; grading of cotton; Indian, South American and Sea-island cottons; the cotton gin; problems relating to the speeds of shafting and pulley diameters; cotton mixing and miscellaneous problems; carding and combing; machinery for spinning; problems relating to drafts; approximate drafts of machines; the picker machine, and calculations relating to it.

The notes on textiles (woolen and worsted spinning) embrace: the study of structure, chemical composition, etc., of textile fibers, including animal, vegetable, mineral and artificial fibers (continued).

Syllabus for elementary course. — Raw materials; wool sorting; scouring; burring; blending and oiling; wool substitutes and waste products, and the method of producing shoddy and mungo; practical spinning.

Syllabus for intermediate course. — Preparing for worsted yarns; construction of gill boxes and the worsted carder; back washing; combing; carding, for woolen yarns; card clothing; card feeding appliances; garnetting; comparison of yarns; calculations; practical spinning.

Syllabus for advanced course. — Condensing of woolen yarns; processes of drawing worsted yarns; mule spinning; worsted spinning machines; twisting frames and twist yarns; gassing or genapping; reeling and bundling; warping; calculations; practical spinning.

Notes on fabric structure and cloth calculations embrace: yarns and methods of grading; worsted yarns, — table of lengths and calculations to find weights and counts; woolen yarns, — table of lengths and calculations to find weights, runs, cuts, etc.; cotton yarns, — table of lengths (which also applies to spun silk) and calculations to find weights and counts; organzine or raw silk yarns, — table of lengths; double and twist yarns composed of different materials, and rules and calculations to obtain required counts; reeds and sett; relative diameters of threads; warp calculations; calculations in filling (continued).

Notes were also employed in the courses for steam engineering; weaving, taking up the plain loom; and loom fixing and calculations.

LECTURE NOTES PREPARED FOR THE INDUSTRIAL SCHOOL IN CAMBRIDGE.

Notes for the Cambridge school include: —

Shop mathematics, — arithmetical signs, their significance and use; mensuration, including rectangles, circles, triangles, hexagons and octagons.

Notes for machine shop include: Notes on taps, — the methods of cutting threads and treatment by annealing, machine taps, taper

taps, plug taps and bottoming taps; notes on gearing, — change gears for screw cutting, simple geared lathe and compound geared lathe, sizing and cutting of gears, including diametrical pitch and circular pitch; cutting screw threads; machine screws by number, giving the number of tap, diameter of tap and size of drill for tapping; bolts and nuts; tapers and angles, showing taper in inches per foot, included angle in degrees and minutes, and angle with center line in degrees and minutes; speed of emery wheels, including those made from corundum and carborundum.

Notes for pattern shop practice include: notes for pattern making; the match plate, including the use of the molding machine; timber, showing the kinds used, and their preparation; patterns, both solid and built up; weights of materials and castings; the match or odd size; the molding board, sometimes called follow board.

LECTURE NOTES PREPARED FOR THE INDUSTRIAL SCHOOL IN BROCKTON.

Notes for the Brockton school include: for the steam engineering course, notes on steel, and the different processes for its manufacture; coal and its composition; combustion; corrosion of boilers, external and internal, and how it may best be prevented; boiler scale, its causes and effect; scale prevention, fresh water; scale prevention, salt water; the steam turbine; the Corliss valve.

NAME OF

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JANITOR
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• SCHOOL _____

APPENDIX F.

SYSTEM OF ACCOUNTING.

The accompanying form of combined cash journal and ledger has been adopted for use in the independent industrial schools under the supervision of the commission.

APPENDIX G.

STATE LAWS ON INDUSTRIAL EDUCATION.

CONNECTICUT.

CHAPTER 250 OF THE PUBLIC ACTS OF 1907.

AN ACT CONCERNING THE ESTABLISHMENT OF FREE PUBLIC SCHOOLS FOR INSTRUCTION IN THE PRINCIPLES AND PRACTICE OF TRADES.

SECTION 1. Any town or school district may by vote of such town or district, establish and maintain a free public school for instruction in the principles and practice of such distinct trades as may, with the approval of the state board of education, be designated by the board of school visitors, town school committee, or board of education of such town, or the district committee of such district. Such school shall be open, under such rules as may be prescribed by said school officers, to all residents of this state; but no child under sixteen years of age shall be admitted to any such school who has not completed the studies of the eighth grade in the public schools of the town in which said school is located, or an equivalent course of study approved by said school officers. Said school officers shall make rules and regulations with reference to the management of said school, not inconsistent with the provisions of this act. The instructors in any such schools shall be experts in the trades respectively taught by them.

SEC. 2. Two or more towns may, by vote of each of said towns, unite for the purpose of forming a trade school district and establishing schools under the provisions of this act, and the school officers of the towns so united may make all arrangements, agreements, and regulations necessary to the organization and maintenance of such trade school district. The said school officers of each of the towns constituting such district shall appoint one of their number to be a member of the trade school committee of such district, and the committee so appointed shall be a joint committee on behalf of the several towns constituting the district. Each town shall be entitled to one vote in said committee. Every district organized under the provisions of this section shall continue for at least five years, but at the end of said period of five years any town may dissolve said district by withdrawal therefrom, by vote of such town: provided, that notice of the intention to so withdraw shall be given

in writing to each of the other towns comprising said district at least three months before the termination of said period.

SEC. 3. The buildings, equipment, and courses of study, and the qualifications of the teachers of every trade school established as hereinbefore provided shall be subject to the approval of the state board of education; and the attendance at each such school, together with special reports upon the specific work done and the actual results of instruction therein, shall be annually certified, under oath, on or before the first Monday in July, by the secretary of the board of school visitors, town school committee, board of education, district committee, or trade school district committee, as the case may be, to said state board of education; and no payments shall be made by the state on account of such school, as hereinafter provided unless said certificate has been filed with and approved by said state board of education, and unless application for state aid for said school has been made to the board of control by said secretary and approved by said board of control.

SEC. 4. The board of education or board of school visitors of any town, or the committee of any town, school district, or trade school district wherein a trade school has been established under the provisions of this act shall, annually, on the first Monday in July, certify to the comptroller the amount expended within said school year for the maintenance and support of said school, and the comptroller shall, upon application of the state board of education, draw his orders on the treasurer in favor of said board of education, board of school visitors, or committee for a sum equivalent to one-half the amount so certified as having been expended for such support and maintenance; provided, that the amount so paid by the state under the provisions of this section shall not, in any one year, exceed, in the aggregate, fifty thousand dollars; and provided, further, that said sum shall be expended toward the support and maintenance of not more than two such schools, and, if application is made in behalf of more than two such schools, the board of control shall designate the two such schools for the support and maintenance of which such payments shall be made.

Approved July 30, 1907.

GEORGIA.

PART I. — TITLE VI. — EDUCATION.

No. 448.

AN ACT TO PROVIDE FOR THE ESTABLISHMENT AND MAINTENANCE OF SCHOOLS OF AGRICULTURE AND THE MECHANIC ARTS IN THE RESPECTIVE CONGRESSIONAL DISTRICTS OF THIS STATE.

SECTION 1. *Be it enacted by the General Assembly of the State of Georgia, and it is hereby enacted by authority of the same,* That the Governor is hereby authorized to establish and cause to be maintained in each congressional district of the State an industrial and agricultural

school in accordance with the further provisions of this Act. Said schools shall be branches of the State College of Agriculture, a department of the University of Georgia. The general board of trustees of the University shall exercise such supervision as in their judgment may be necessary to secure unity of plan and efficiency in said schools.

SEC. 2. *Be it further enacted*, That all fees received from the inspection of fertilizers, oils, and all other inspection fees received by the Department of Agriculture in this State, after the present year, over the expenses of such inspection, and after any portion of said fund otherwise appropriated, shall be used as a fund for the purpose of establishing and maintaining such schools, and, as far as practicable, be equally divided between such schools and the said Governor is authorized to pay to the trustees of said schools, from time to time, their respective portions of said fund.

SEC. 3. *Be it further enacted*, That the Governor is authorized and directed to appoint from each county in the respective congressional districts one trustee for the school to be established in such districts; such trustee to hold office for the term of six years from his appointment and until his successor is appointed, and that the trustees so selected in each district shall constitute a board of trustees for the school in said district, with power to control the management of said school, and make rules and regulations for the same, subject to the provisions of this Act.

SEC. 4. *Be it further enacted*, That the Governor shall be authorized to receive from any county, or any of the citizens thereof, a donation of a tract of land in such county, not less than two hundred acres, on which to locate a school for the district in which such a county is situated, together with any additional donation in the way of buildings or money; and if there are two or more offers of such donations, the Governor, with the aid of the trustees of such school, shall select which to accept, taking into consideration the title, value, the centralness of location, accessibility and suitableness in any respect for the purpose intended, and upon the acceptance of any such donation, and the execution of proper deeds vesting title in the trustees, within a reasonable time, the school for said district shall be established on the tract selected, with the right to select another locality should such deeds not be made to the satisfaction of the Governor. And if no such donation is made or perfected in any district within one year from passage of this Act the pro rata share of the fund going to said district shall go into and be prorated in the regular common school fund in said district.

SEC. 5. *Be it further enacted*, That the principal of said schools shall, under the direction of the trustees, keep an account of all receipts from the sale of the products of the farm or shops which are not consumed in said school, and one-half of said receipts for each year shall be set aside as a fund to pay the students. That each pupil, having performed to the satisfaction of the principal his duties for an entire

school year, shall receive his pro rata of said fund, the amount going to each pupil not to exceed one hundred dollars, and the balance, if any, to be replaced in the general fund of the school.

SEC. 6. *Be it further enacted*, That the course of studies in said schools shall be confined to the elementary branches of an English education, and practical treatises or lectures on agriculture in all its branches, and the mechanic arts, and such other studies as will enable students completing the course to enter the Freshman class of the State College of Agriculture on certificate of the principal.

SEC. 7. *Be it further enacted*, That the faculty of such schools shall consist of the principal, who shall be an intelligent farmer; one superintendent and instructor in farm work, one intelligent mechanic, who shall direct and instruct in all mechanical work in and out of the shops; one practical instructor in care of stock and dairying, one instructor in English, and such other instructors and assistants as the funds of the college may permit. That the trustees may dispense with and combine the duties of any of the above, as necessity may require, and it shall be the duty of said instructors in said schools to co-operate in conducting farmer's institutes and farm and stock demonstrations in the several counties of their respective districts.

SEC. 8. *Be it further enacted*, That after the first buildings are erected, before the opening of such schools, which shall be only such as are absolutely necessary for temporary use, all work on, in and about said schools, or on the farm, or on or in the barns and shops connected with said schools, whether it be farming, building, care of stock, or work of whatever kind, shall be performed exclusively by the students of said schools under such regulations for the proper division and alterations in such work as may be provided by the trustees.

SEC. 9. *Be it further enacted*, That tuition in said schools shall be free, and the trustees may limit the number of students, from time to time, according to the capacity and means of the institution, and shall make such rules of admission so as to equalize, as far as practicable, the privileges of the school among the counties according to population. And the trustees may defer the actual opening of the school until such time as may be necessary to prepare reasonably proper facilities and equipment for beginning the same, in the meantime accumulating for said purpose the funds going to said school which may be received from the rent of any portion of the property, but it is made the duty of said trustees to open said school, even though it may have to be done at first on a limited scale, as early as practicable, and afterwards extend its operations as circumstances may permit; and the trustees are authorized to rent to the best advantage, from time to time, any portion of the property of said school not required for the purposes of said school.

SEC. 10. *Be it further enacted*, That all laws and parts of laws in conflict with this Act be, and the same are, hereby repealed.

Approved August 18, 1906.

MICHIGAN.

PUBLIC ACTS No. 35.

AN ACT TO PROVIDE FOR THE ESTABLISHMENT OF COUNTY SCHOOLS OF AGRICULTURE, MANUAL TRAINING AND DOMESTIC ECONOMY.

The People of the State of Michigan enact:

SECTION 1. The board of supervisors of any county is hereby authorized to appropriate money for the organization, equipment and maintenance of a county school of agriculture and domestic economy. The board of supervisors of two or more counties may unite in establishing such a school, and may appropriate money for its organization, equipment and maintenance: Provided, That whenever the board of supervisors of the county shall by a two-thirds vote of all members elect, resolve to contract indebtedness or issue bonds to raise money for the organization, equipment and maintenance of such school, the question shall be submitted to the vote of the electors of the county at a general or special election to be called for that purpose. Notice of the submission of such resolution to the vote of the electors and in case a special election is called, notice of the calling of such special election shall be given in the same manner and for the same length of time as is now prescribed by law for general elections. If a majority of the electors of each county, voting on such resolution, shall vote in favor thereof, it shall be deemed to have carried. The returns of the election herein provided for shall be canvassed and the results declared in the same manner and by the same officers as is provided by general law for canvassing the returns of and declaring the results in city, county and district elections. The manner of stating the question upon the ballots shall be prescribed by the resolution of the board of supervisors.

SECTION 2. A board to be known as the county school board is hereby created, which shall have charge and control of all matters pertaining to the organization, equipment and maintenance of such schools, except as otherwise provided by law. Said board shall consist of five members, one of whom shall be the county commissioner of schools of the county or district in which the school is located. The other members of the board shall be elected by the board of supervisors, one for one year, one for two years, one for three years and one for four years, and thereafter one member of the board shall be elected annually for the full term of four years from the date of the expiration of the term about to become vacant, but no member of the board of supervisors shall be eligible. Vacancies existing in the board from whatever cause, except in the case of the county commissioner, shall be filled by appointment made by the chairman of the board of supervisors, if the board of supervisors is not in session when such vacancy occurs. If the board of supervisors is in session, vacancies shall be filled by election by said

board for the unexpired term. Appointments made by the chairman of the board of supervisors, as hereinbefore specified, shall be for the period of time until the next regular meeting of the board of supervisors. Each person appointed or created a member of the county school board shall, within ten days after the notice of such appointment, take and subscribe an oath, to support the constitution of the United States and the constitution of Michigan, and honestly, faithfully and impartially to discharge his duties as a member of said board, to the best of his ability, which oath shall be filed in the office of the county clerk. He shall also, within the same time, file a bond in such sum as may be fixed by the board of supervisors, which bond shall be filed in the office of the county clerk. Within fifteen days, after the appointment of said board, the members thereof shall meet and organize by electing one of their number as president. The county commissioner of schools shall be ex-officio secretary of the said board. The board hereafter created shall prescribe the duties of the several officers except as fixed by law.

SECTION 3. Whenever two or more counties unite in establishing such a school, the provisions of section two of this act shall apply to the organization of the county school board, and to filling vacancies therein: Provided, That the county commissioner of the county in which the school is located shall be a member of the board and ex-officio its secretary; and two members shall also be elected from each county by the board of supervisors thereof, one for one year and one for two years, and thereafter one member of the board shall be elected annually in each county for the full term of two years, but no member of the county board of supervisors shall be eligible.

SECTION 4. Whenever two or more counties shall unite in establishing and maintaining a school under the provisions of this act, the county school board herein provided shall, on or before the first day of October in each year, determine the amount of money necessary for the equipment and maintenance of said school for the ensuing year, which said amount they shall apportion among the counties in proportion to the assessed valuation of each county as last fixed by the State Board of Equalization and shall report their estimate and apportionment to the county clerk of each county, who shall lay said report before the board of supervisors at its annual meeting. The amount so apportioned to each county shall be levied by the board of supervisors of such county, as a portion of the county tax for the ensuing year, for the support of the said school.

SECTION 5. The county treasurer of the county in which said school is located shall be ex-officio treasurer of said board; all moneys appropriated and expended under the provisions of this act shall be expended by the county school board and shall be paid by the said county treasurer on orders issued by said board or in counties having a board of

county auditors, by such auditors, and all moneys received by said board shall be paid to the said county treasurer for the fund of the county school board.

SECTION 6. In the county schools of agriculture and domestic economy organized under the provisions of this act, instruction shall be given in the elements of agriculture including instruction concerning the soil, the plant life, and the animal life of the farm; a system of farm accounts shall also be taught; instructions shall also be given in manual training and domestic economy and such other related subjects as may be prescribed.

SECTION 7. Each such school shall have connected with it a tract of land suitable for purposes of experiment and demonstration, of not less than ten acres in area.

SECTION 8. The schools organized under the provisions of this act shall be free to the inhabitants of the county or counties contributing to their support, who shall be qualified to pursue the course of study as prescribed by the school board. Whenever students of advanced age desire admission to the school during the winter months in sufficient number to warrant the organization of special classes for their instruction, such classes shall be organized and continued for such time as their attendance may make necessary.

SECTION 9. The State Superintendent of Public Instruction shall give such information and assistance and establish such requirements as may seem necessary for the proper organization and maintenance of such schools, and, with the advice of the president of the Michigan State Agricultural College, determine the qualifications required of teachers employed in such schools: Provided, That no person shall be eligible to a position as superintendent of any school established under this act, who is not a graduate of a state college of agriculture. The State Superintendent of Public Instruction shall have the general supervision of all schools established under this act; shall from time to time inspect the same, make such recommendations relating to their management as he may deem necessary, and make such report thereon to said schools as shall give full information concerning their number, character and efficiency.

This act is ordered to take immediate effect.

Approved April 3, 1907.

MISSISSIPPI.

CHAPTER 102.

S. B. No. 302.

AN ACT TO PROVIDE FOR THE ESTABLISHMENT OF A COUNTY AGRICULTURAL HIGH SCHOOL; AND TO PROVIDE FOR THE ORGANIZATION, EQUIPMENT AND MAINTENANCE.

To provide for County Agricultural High Schools.

SECTION 1. *Be it enacted by the Legislature of the State of Mississippi,* That it shall be lawful for the county school board of any county in the State to establish one agricultural high school in the county for the purpose of instructing the white youth of the county in high school branches, theoretical and practical agriculture, and in such other branches as the board hereinafter provided for may make a part of its curriculum.

Board of Supervisors empowered to levy Tax not exceeding Two Mills.

SEC. 2. The board of supervisors of any county where an agricultural high school has been established by the county school board, shall have the power, if necessary, to levy a tax on the taxable property at the time the annual tax levy is made for the support and maintenance of the said school, provided that such tax for any one year shall not exceed two mills; and provided further that should within twenty days after such levy shall have been made a petition of twenty per cent. of the qualified electors of the said county shall file with the clerk of the board of supervisors a petition asking that that tax be not levied, then the question shall be submitted to an election of the qualified electors of the county within thirty days after the next meeting of the board of supervisors after the filing of the petition, and should a majority of the votes cast be against the tax, the levy of the board for the high school shall be null and void, and the tax collector shall refuse to collect the tax; but should a majority of the votes be for the tax, then the tax collectors shall proceed to collect the tax as all other taxes are collected, receiving the lawful commission for such collection. The tax so collected shall be deposited with the county treasurer to be paid out by him on the order of the board of trustees of the high school.

Government of Such School vested in Five Trustees.

SEC. 3. The government and control of the county agricultural high school shall be vested in a board of five trustees, two of whom shall be elected by the board of supervisors, two by the county school board, and the county superintendent of education shall constitute the fifth member. Two of the number first elected shall serve for two years, and their suc-

cessors shall serve for a term of four years; and two shall serve for a term of four years. All regular terms shall be for a term of four years. The trustees shall have control of the property, elect and fix salaries of all teachers and employees, and shall have full power to do all things necessary to the successful operation of said school. The trustees are hereby empowered to receive donations of land, money and any other things of value for said school, and, if necessary, to buy real property. No school shall be recognized by the State Board of Education as an agricultural high school until at least twenty acres of land have been acquired.

Duty of State Superintendent when School lawfully established.

SEC. 4. When the State Superintendent of Education shall have received from the county superintendent of education of any county a statement showing that an agricultural high school has been located by the county school board, that the land as heretofore provided has been acquired, the necessary levy has been made by the board of supervisors as heretofore provided for in this Act, and suitable buildings have been erected, including a boarding department, where not less than forty students may have dormitory and dining-room facilities, then the State Superintendent shall visit said school, and after a thorough inspection of said school, shall make a full and complete report of said inspection to the State Board of Education. Should it appear to the Board of Education that it would be to the interest of the State, the board shall draw an order on the Auditor in favor of the county treasurer for the sum of one thousand dollars for the use of the trustees of the high school, and the Auditor shall issue his warrant annually on the treasurer for the amount. Provided, that no aid shall be given an agricultural high school until the State Board of Education has approved the plans for the buildings and the course of study for the same. The appropriation of one thousand dollars shall be made annually, but State aid may be withdrawn at any time when the State Board of Education finds that a school is not being legally conducted for the purpose for which it was established.

SEC. 5. It shall be the duty of the Legislature to make appropriations to meet the conditions of this Act.

SEC. 6. That this Act be in force and take effect from and after its passage.

Approved March 21, 1908.

NEW JERSEY.

JOINT RESOLUTION, No. 11.

A JOINT RESOLUTION AUTHORIZING THE GOVERNOR TO APPOINT A COMMISSION TO INQUIRE INTO THE SUBJECT OF INDUSTRIAL EDUCATION AND REPORT THEREON TO THE NEXT LEGISLATURE.

Be it resolved by the Senate and General Assembly of the State of New Jersey:

1. The Governor is hereby authorized to appoint a commission of five persons, citizens of New Jersey, to inquire into and report to the next Legislature upon the subject of promoting industrial and technical education: the commissioners to be appointed by virtue of this act shall serve without compensation, but shall be repaid their expenses, actually incurred in and about the performance of their duties, and may employ a secretary and all necessary and clerical and other assistance; provided, however, the total expense of said commission shall not exceed three thousand dollars.

2. The commission shall investigate the needs for education in the different grades of skill and responsibility in the various industries of the commonwealth. They shall investigate how far the needs are met by existing institutions and what new forms of educational effort shall be advisable, and shall make such investigations as may be practicable as to similar educational work done by other states, by the United States government and by foreign governments.

3. All expenses of the commission as herein provided for shall be paid out of moneys specially provided therefor.

4. This resolution shall take effect immediately.

Approved April 14, 1908.

NEW YORK.

AN ACT TO AMEND THE CONSOLIDATED SCHOOL LAW BY PROVIDING FOR THE ESTABLISHMENT AND MAINTENANCE OF GENERAL INDUSTRIAL AND TRADE SCHOOLS IN CITIES AND IN UNION FREE SCHOOL DISTRICTS, AND MAKING AN APPROPRIATION THEREFOR.

(Became a law May 18, 1908, with the approval of the Governor. Passed, three-fifths being present.)

The people of the State of New York, represented in Senate and Assembly, do enact as follows:

SECTION 1. Section twenty-five of article ten of title fifteen of the consolidated school law is hereby amended to read as follows: —

Article X. — General Industrial and Trade Schools.

25. *General Industrial and Trade Schools may be established. —*

1. The board of education of any city, and in a city not having a board of education the officer having the management and supervision

of the public school system, may establish, acquire, conduct and maintain as a part of the public school system of such city general industrial schools open to pupils who have completed the elementary school course or who have attained the age of fourteen years, and trade schools open to pupils who have attained the age of sixteen years and have completed either the elementary school course or a course in the above mentioned general industrial school or who have met such other requirements as the local school authorities may have prescribed.

2. The board of education of any union free school district shall also establish, acquire and maintain such schools for like purposes whenever such schools shall be authorized by a district meeting.

2. Section 25-a is hereby added to article ten, title fifteen, of the consolidated school law, and to read as follows:—

25-a. 1. *Appointment of an Advisory Board.*—The board of education in a city and the officer having the management and supervision of the public school system in a city not having a board of education shall appoint an advisory board of five members representing the local trades and industries. In the first instance two of such members shall be appointed for a term of one year and three of such members shall be appointed for a term of two years. Thereafter as the terms of such members shall expire the vacancies caused thereby shall be filled for a full term of two years. Any other vacancy occurring on such board shall be filled by the appointing power named in this section for the remainder of the unexpired term.

2. It shall be the duty of such advisory board to counsel with and advise the board of education or the officer having the management and supervision of the public school system in a city not having a board of education in relation to the powers and duties vested in such board or officer by section twenty-six of this act.

3. Section twenty-six of article ten of title fifteen of the consolidated school law is hereby amended to read as follows:—

26. *Authority of the Board of Education over Such Schools.*—The board of education in a city and the officer having the management and supervision of the public school system in a city not having a board of education and the board of education in a union free school district which authorizes the establishment of a general industrial or a trade school is vested with the same power and authority over the management, supervision and control of such school and the teachers or instructors employed therein as such board or officer now has over the schools and teachers under their charge. Such boards of education or such officer shall also have full power and authority:—

1. To employ competent teachers or instructors.

2. To provide proper courses of study.

3. To purchase or acquire sites and grounds and to purchase, ac-

quire, lease or construct and to repair suitable shops or buildings and to properly equip the same.

4. To purchase necessary machinery, tools, apparatus and supplies.

4. Section twenty-seven of article ten of title fifteen of the consolidated school law is hereby amended to read as follows:—

27. *State Aid for General Industrial and Trade Schools.*—The commissioner of education in the annual apportionment of the state school moneys shall apportion therefrom to each city and union free school district the sum of five hundred dollars for each independently organized general industrial or trade school maintained therein for forty weeks during the school year and employing one teacher whose work is devoted exclusively to such school, and having an enrollment of at least twenty-five pupils and maintaining a course of study approved by him. He shall also make an additional apportionment to each city and union free school district of two hundred dollars for each additional teacher employed exclusively in such schools for forty weeks during the school year. All such moneys apportioned by the commissioner of education shall be used exclusively for the support and maintenance of such schools in the city or district to which such moneys are apportioned. But the commissioner of education may in his discretion apportion to a district or city maintaining such schools or employing such teachers for a shorter time than forty weeks, an amount pro rata to the time such schools are maintained or such teachers are employed. This section shall not be construed to entitle manual training high-schools or other secondary schools maintaining manual training departments, to an apportionment of funds herein provided for.

5. Section twenty-eight is hereby added to article ten, title fifteen, of the consolidated school law, and to read as follows:—

28. *Annual Estimate by Board of Education and Appropriations by Municipal and School Districts.*—1. The board of education of each city or the officer having the management and supervision of the public school system in a city not having a board of education shall file with the common council of such city within thirty days after the commencement of the fiscal year of such city a written itemized estimate of the expenditures necessary for the maintenance of its general industrial and trade schools and the estimated amount which the city will receive from the state school moneys applicable to the support of such schools. The common council shall give a public hearing to such persons as wish to be heard in reference thereto. The common council shall adopt such estimate and after deducting therefrom the amount of state moneys applicable to the support of such schools shall include the balance in the annual tax budget of such city. Such amount shall be levied, assessed and raised by tax upon the real and personal property liable to taxation in the city at the time and in

the manner that other taxes for school purposes are raised. The common council shall have power by a two-thirds vote to reduce or reject any item included in such estimate.

2. The board of education in a union free school district which maintains a general industrial or trade school shall include in its estimate of anticipated expenses pursuant to the provisions of sections nine and eighteen of title eight of this act the amount that will be required to maintain such schools after applying toward the maintenance thereof the amount apportioned therefor by the commissioner of education. Such amount shall thereafter be levied, assessed and raised by tax upon the taxable property of the district at the time and in the manner that other taxes for school purposes are raised in such district.

6. *Powers and Duties of Commissioner of Education.* — The commissioner of education shall have general supervision of such schools; he shall prescribe regulations governing the licensing of the teachers employed therein; and he is hereby authorized, empowered and directed to provide for the inspection of such schools, to take necessary action to make effectual the provisions of this act, and to advise and assist boards of education in the several cities and school districts in the establishment, organization and management of such schools. The sum of seven thousand dollars or so much thereof as may be necessary, is hereby appropriated to the education department for the enforcement of this act, and the commissioner of education is hereby empowered to create such positions, to make such appointments and to fix the salary of employees as may be necessary for the purposes of this act for the period of one year.

7. This act shall take effect immediately.

STATE OF NEW YORK, }
OFFICE OF THE SECRETARY OF STATE. } ss.:

I have compared the preceding with the original law on file in this office, and do hereby certify that the same is a correct transcript therefrom and of the whole of said original law.

JOHN S. WHALEN,
Secretary of State.

WISCONSIN.

CHAPTER 122, LAWS OF 1907.

AN ACT TO CREATE SECTIONS 926-22 TO 926-30, INCLUSIVE, STATUTES, PROVIDING FOR THE ESTABLISHMENT AND MAINTENANCE OF TRADE SCHOOLS IN THE STATE OF WISCONSIN.

The people of the State of Wisconsin, represented in Senate and Assembly, do enact as follows:

SECTION 1. There are added to the statutes nine new sections, to read: Section 926-22. Any city in the state of Wisconsin or any school district having within its limits a city desiring to establish,

conduct and maintain a school or schools for the purpose of giving practical instruction in the useful trades to persons having attained the age of sixteen years, as a part of the public school system of such city, is empowered to do so by complying with the provisions of sections 926-23 to 926-30, inclusive, statutes of 1898.

926-23. Such trade school or schools shall be under the supervision and control of the school boards of the respective cities or school districts in which they may be located.

926-24. The school board of every such city or school district is given such power and authority to establish, take over and maintain a trade school or schools, equip the same with proper machinery and tools, employ a competent instructor or instructors, and give practical instruction in one or more of the common trades. Such a trade school shall not be maintained, however, unless there be an average enrollment of at least thirty scholars.

926-25. Whenever any school board shall have established or taken over an established trade school, such school board may prepare the courses of study, employ instructors, purchase all machinery, tools and supplies, purchase or lease suitable grounds or buildings for the use of such school and exercise the same authority over such school which it now has over the schools under its charge.

926-26. Whenever any school board shall have established or taken over an already established trade school or schools it may appoint an advisory committee, to be known as the committee on trade schools, consisting of five citizens, not members of the school board, each of whom is experienced in one or more of the trades to be taught in the school or schools, to assist in the administration of the trade school or schools located in that city, which committee shall be appointed by the president of such school board with the approval of a majority of the board. Such committee shall have authority subject to the approval and ratification of the school board, to prepare courses of study, employ or dismiss instructors, purchase machinery, tools and supplies, and purchase or rent suitable grounds or buildings for the use of such trade schools. When any such committee on trade schools is appointed two of its original members shall be appointed for the term of one year, another two for the term of two years, and the fifth member for a term of three years, and thereafter, each member of said committee shall be appointed for the term of two years. In case of any vacancy during the term of any member of said committee, said school board shall fill such vacancy by appointment for such unexpired term.

926-27. Students attending any such trade school may be required to pay for all material consumed by them in their work in such school at cost prices or in lieu thereof the school board may establish a fixed sum to be paid by each student in each course which sum shall be sufficient to cover, as nearly as may be, the cost of the material to

be consumed in such course; any manufactured article made in such school may be disposed of at the discretion of the school board, and the proceeds shall be paid into the trade school fund.

926-28. Whenever any such school board shall have decided to establish a trade school or schools, or to take over one already established, under the provision of this act, a tax, not exceeding one-half mill on the total assessed valuation of such city shall be levied, upon the requisition of the school board, as other school taxes are levied in such city; the fund derived from such taxation shall be known as the trade school fund, shall be used in establishing and maintaining a trade school or trade schools in such city, shall not be diverted or used for any other purpose whatsoever, and may be disposed of and disbursed by the school board of such city in the same manner and pursuant to the same regulations governing the disposition and disbursement of regular school funds by such boards.

926-29. Any school board desiring to avail itself of the provisions of this act, may, before the trade school fund herein provided for becomes available, establish, take over, equip and maintain a trade school or schools out of the regular school funds which may be at the disposal of such school board, provided, however, that all moneys used for these purposes out of the regular school funds shall be refunded within three years from the trade school fund.

926-30. 1. When the school board of any city of the second, third or fourth class, or the school board of any school district having within its limits such a city, shall determine to establish, take over, conduct or maintain such trade school, it shall publish notice of its intention so to do with a copy of the resolutions or order expressing such determination once each week for four successive weeks in a newspaper published in said school district and shall take no further steps in said matter until the expiration of thirty days from the date of the first publication.

2. If within such thirty days there shall be filed with the clerk of such city a petition signed by a number of electors of the school district equal to twenty per centum of the number of votes cast in said city at the last municipal election praying that the question of the establishment, taking over, conduct and maintenance of such trade school shall be submitted to the vote of the electors of such school district, the city clerk shall at the earliest opportunity lay such petition before the common council. The common council shall thereupon at its next regular meeting by resolution or ordinance direct the city clerk to call a special election for the purpose of submitting such question to the electors of such city and school district.

3. Such election shall be noticed and conducted and canvassed in accordance with the provisions of section 943, statutes of 1898. All electors within the territory constituting such school district, quali-

fied to vote at any election pertaining to school district matters shall be entitled to vote.

4. If any of said school districts shall be beyond the limits of such city, the city clerk shall immediately upon the passage of the resolution or ordinance by the city council ordering such election, transmit a copy thereof to the clerk of the town or towns of which such territory is constituted. The clerk or clerks of said towns shall thereupon cause a notice of such election to be given and such election to be held and canvassed as provided in section 943.

5. If a majority of the ballots cast in such school district shall be in favor of establishing, taking over, conducting or maintenance of such trade school, then such board shall proceed as heretofore provided to establish, take over, conduct and maintain such trade school. But if a majority shall vote against such proposition to establish, take over, conduct and maintain a trade school, the board shall take no further steps towards such end.

6. If no petition to submit such proposition to establish, take over, or maintain a trade school to the vote of the electors shall be filed with the city clerk within thirty days after the first publication of the notice of the determination of the school board to take such action, then such school board may proceed as hereinbefore provided without submitting such proposition to the electors of the district.

Approved May 22, 1907. In effect July 1, 1907.

INDEX.

A.

	PAGE
Accounts,	28
form of,	163
Adams, investigation among grammar school pupils in,	135
Advisory committee, Beverly,	43
Agricultural instruction, Montague,	28-32
Northampton,	37, 38, 40
Agricultural school, for girls,	26
Montague day,	28-35
Smith's, and Northampton School of Technology,	35-41
Beverly,	43
Agriculture, Montague,	30, 31, 32
Northampton,	37, 38, 40, 41
Arithmetic for industrial schools,	19

B.

Balch, Miss Emily G.,	13, 100
Beverly, evening industrial school in,	20, 41, 42-45
Blacksmithing, Cambridge,	49
Chicopee,	52
Worcester,	111
Board of trustees, Montague,	29, 30
Chicopee,	53
New Bedford,	75
Newton,	76
Walpole,	79
Boston, evening industrial school in,	20, 41, 46, 47
Brockton, evening industrial school in,	20, 41, 47-48
lecture notes,	162

C.

Cambridge, evening industrial school in,	20, 41, 49-52
investigation among grammar school pupils in,	135
lecture notes,	162
Chicopee, evening industrial school in,	20, 41, 52, 53
investigation among grammar school pupils in,	135

PAGE

Civics and citizenship, Montague,	31
Northampton,	40
Worcester,	110, 111
Clinton, investigation among gram- mar school pupils in,	135
Commercial studies, Worcester,	112, 116, 117
Lynn,	123
Commission, preliminary, on indus- trial and technical education,	13
Connecticut, legislation on industrial education in,	93, 94, 164, 165
Courses, agricultural, Montague,	30-32
Northampton,	37, 40, 41
Courses, domestic,	24, 31, 32
Montague,	31, 32, 34
Northampton,	4
Courses, industrial, given in the schools under the commission, 70-73	
Montague,	30-32
Northampton,	38, 40, 41
Beverly,	42-45
Boston,	46, 47
Brockton,	48
Cambridge,	49-52
Chicopee,	52, 53
Lawrence,	58-61
Natick,	61, 62
New Bedford,	63-66
Pittsfield,	67
Taunton,	68
Waltham,	69, 70
Courses on heat and power, New Bed- ford,	64

D.

Day industrial schools, Montague,	20, 22, 28-35
Northampton,	20, 28, 35-41
Design, Northampton,	38
Boston (industrial),	46, 47
Lawrence,	58
Lynn (for shoes),	124
Domestic art (dressmaking and mil- linery), Montague,	31
Northampton,	38, 41

	PAGE
Domestic art (dressmaking and millinery), Brockton,	48
Cambridge,	49
Lawrence,	59
Natick,	61
New Bedford,	65
Taunton,	68
Lynn,	126
Domestic instruction for girls,	24
Domestic science, Montague,	31, 32, 34
Northampton,	37, 38, 41
Cambridge,	49
Natick,	61, 62
New Bedford,	65
Walpole,	79
Lynn,	126
Drawing, architectural, Northampton, . . .	43
Beverly,	43, 44, 45
Boston,	46, 47
Brockton,	48
Cambridge,	49, 51
Walpole,	79
Drawing, freehand, Northampton,	40
Beverly,	44, 45
Boston,	46, 47
Brockton,	48
Cambridge,	49, 51
Lynn,	122
Drawing, industrial, Montague,	31, 32
Northampton,	41, 42
Beverly,	43, 45
Boston,	46, 47
Brockton,	48
Chicopee,	53
Waltham,	69, 70
Walpole,	79
Worcester,	110, 111, 112
Drawing, mechanical, Northampton, . . .	41
Beverly,	42, 44
Boston,	46, 47
Brockton,	48
Cambridge,	49, 50
Chicopee,	52
Pittsfield,	67
Walpole,	79
Lynn,	122

E.

Electricity, Beverly,	45
Lawrence,	59
New Bedford,	63
English, Montague,	30, 31, 32
Northampton,	40
Worcester,	110, 111, 112, 116
Lynn,	123
Erving,	34

	PAGE
Evening industrial schools,	41-70
Beverly,	20, 41, 42-45
Boston,	20, 41, 46, 47
Brockton,	20, 41, 47, 48
Cambridge,	20, 41, 49-52
Chicopee,	20, 41, 52, 53
Lawrence,	20, 41, 54-61
Natick,	20, 41, 61, 62
New Bedford,	20, 41, 62-66
Pittsfield,	20, 41, 66, 67
Taunton,	20, 41, 67, 68
Waltham,	20, 41, 68-70

F.

Falling out of pupils, in the upper grades of grammar school,	81, 82, 83, 132-144
between the grammar school and high school,	81, 82, 83, 133, 140-144
Fall River, investigation among grammar school pupils in,	135
Filene, A. Lincoln,	13, 100
Fitchburg, investigation among grammar school pupils in,	135
Foxborough, progress toward the establishment of a day industrial school in,	74

G.

Gardner, investigation among grammar school pupils in,	135
Gas engines, Beverly,	44, 45
New Bedford,	63, 65
Georgia, legislation on industrial education in,	94, 165-167
Girls, industrial education for,	22-27
education for trades,	23
education for domestic life,	24
agricultural schools for,	26
supervision of industrial schools for girls,	27
industrial training for, in Worcester,	105, 106
industrial education of, at Lynn	126
Gloucester, investigation among grammar school pupils in,	135
Grammar school pupils, investigation among, in 45 cities and towns,	80-83, 132-144
Guild, Curtis, Jr., Gov.,	13

H.

Hanus, Paul H.,	13, 92, 100
Haverhill, investigation among grammar school pupils in,	135

Higgins, Milton P., 13, 77, 78, 79, 100,
103, 104,

High school pupils, investigation
among, in Lawrence, Lynn,
Springfield and Worcester, 81-83,
140-144

I.

Industrial chemistry and physics,
Montague, 30, 31, 32
Northampton, 40
Beverly, 45
Lawrence, 59, 60
New Bedford, 63, 66
Worcester, 111, 112, 116, 117
Lynn, 122

Industrial schools, Massachusetts,
legislation relative to, . . . 9-13
day schools, 18, 28
evening schools, 18
aid in the planning and establish-
ment of, 19
selection of teachers for, . . . 19
programs of study for, . . . 19
industrial arithmetic for, . . . 19
text-books for, 20
lecture notes for, 20, 21
rural, 21
supervision of, 22
for girls, 22-27
supervision of, for girls, . . . 27
schools established, 28-73
courses given in the, under the
commission, 70-73
progress toward the establish-
ment of, 74-80

Investigations by the commission
among grammar school pupils
in 45 cities and towns, . . . 80-83,
132-144

Investigations by the commission
among the parents in Law-
rence, Lynn, Springfield and
Worcester, 83-91, 145-159

K.

Kehew, Mary Morton, 13

L.

Lawrence, evening industrial school
in, 20, 41, 54-61
investigation of grammar school
pupils in, 80, 139
investigation of high school pupils
in, 141

Lawrence, inquiries among the par-
ents of pupils in, . . . 83, 85, 148
number of pupils in upper grades
of the grammar school in, 139, 141
pupils in first year of high school
in, 141
lecture notes, 160

Lecture notes prepared for the in-
dustrial schools under the
commission at Lawrence,
Cambridge and Brockton, 160-162

Legislation, Massachusetts, on indus-
trial education, 9-12
industrial education, in other
States, 93-98, 164-179

Leominster, investigation among
grammar school pupils in, . . 135

Leverett, 34

Local agents, of the commission, Bev-
erly, 42
Boston, 46
Brockton, 47
Lawrence, 55
Natick, 61
New Bedford, 62
Taunton, 68

Lowell, investigation among grammar
school pupils in, 135

Lynn, progress toward the establish-
ment of a day industrial school
in, 74, 75

investigation of grammar school
pupils in, 80-83, 135

investigation of high school
pupils in, 142

inquiries among the parents of
pupils in, 84, 86, 150-153

report of the, commission on a
proposed industrial school for
shoe workers, 119-131

day school for shoe workers at, . 120

interest of the citizens in a shoe
school at, 86, 120

curriculum of proposed shoe
school at, 121, 127

number of men engaged in shoe
industry in, 125

part-time industrial courses at, . 127

teachers in the proposed indus-
trial school at, 127

probable expense of proposed
shoe school at, 128-130

number of pupils in upper grades
of the grammar school at, 135, 142

pupils in first year of high school
in, 142

M.

	PAGE
Machine shop practice, Beverly,	45
Boston,	46, 47
Cambridge,	49
Chicopee,	53
Waltham,	69, 70
Worcester,	110, 111
thorough grounding in,	113, 114
Lynn,	121, 122
Machinists, plan for a school for, at Worcester,	103-118
Machinists trade school. <i>See</i> under Worcester.	
Malden, investigation among gram- mar school pupils in,	135
Marlborough, investigation among grammar school pupils in,	135
Marshall, Miss Florence M.,	27, 92
Maryland, legislation on industrial education in,	94
Massachusetts Commission on Indus- trial Education, members of the,	13
legislation establishing the,	9
legislation extending the term of office of the,	11
publications of the,	13-16
reports of the,	13, 14
bulletins of the,	14, 15
policy of the,	16
statements issued by the,	16
work of the, 1908,	19-91
Massachusetts legislation on indus- trial education,	9-12
Mathematics, industrial, proper teach- ing,	19
Montague,	30
Northampton,	40, 43
Beverly,	43, 44
Boston,	46, 47
Cambridge,	50
Lawrence,	58, 59
New Bedford,	63, 65
Pittsfield,	67
Waltham,	69, 70
Walpole,	79
Worcester,	110, 111, 112, 116
Lynn,	121
Medford, investigation among gram- mar school pupils in,	135
Melrose, investigation among gram- mar school pupils in,	136
Michigan, legislation on industrial education in,	95, 168-170
Milford, investigation among gram- mar school pupils in	136

PAGE

Mississippi, legislation on industrial education in,	95, 96, 171, 172
Modeling, clay, Taunton,	68
Montague, day industrial school in,	20, 22, 28-35
Morse, Charles H. (<i>see also</i> under Secretary),	13, 92

N.

Natick, evening industrial school in,	20, 41, 61, 62
National movement for industrial edu- cation,	92
National Society for the Promotion of Industrial Education,	92
Massachusetts State Branch of the,	92
New Bedford, progress toward the es- tablishment of a day industrial school in,	75
evening industrial schools in,	20, 41, 62-67
investigation among grammar school pupils in,	136
Newburyport, investigation among grammar school pupils in,	136
New Jersey, legislation on industrial education in,	96, 173
Newton, progress toward the estab- lishment of a day industrial school in,	75
investigation among grammar school pupils in,	136
New York, legislation on industrial education in,	96-98, 173-176
Non-resident pupils,	11, 12
Montague,	32
North Adams, investigations among grammar school pupils in,	136
Northampton, day industrial school in,	20, 35-41
investigation among grammar school pupils in,	136

P.

Parents, inquiries among the, of pupils in Lawrence, Lynn, Springfield and Worcester,	145-159
Pattern making, Boston,	47
Cambridge,	49, 50
Chicopee,	53
Worcester,	111
Lynn (for shoes),	125
Pittsfield, evening industrial school in,	20, 41, 66, 67

	PAGE
Pittsfield, investigation among grammar school pupils in, . . .	136
Policy of the commission, statement of the,	16-19
Products, disposition of the shop, in the proposed trade school for Worcester,	114, 115
Publications of the commission, previous to 1908,	13
issued in 1908,	14

R.

Reading of drawings, Cambridge, . . .	51
Lawrence,	58, 59
Recommendations by the commission for industrial school legislation,	99, 100
Reimbursement of cities, towns or districts expending money for industrial education,	99
Revere, investigation among grammar school pupils in,	136
Richardson, Carlton D.,	13, 100
Rural industrial schools,	21, 22
types of,	21, 22

S.

Salem, investigation among grammar school pupils in,	136
Science, Montague,	30
Northampton,	40
Beverly,	44, 45
Lynn,	122
Secretary and executive officer of the commission (<i>see also</i> under Charles H. Morse), 9, 13, 14, 16, 42, 43, 46, 54, 74, 75, 77	
Shelburne,	34
Ship draughting, Boston,	46, 47
Shoemaking, Lynn,	124, 125, 126
Shoe trade school. <i>See</i> under Lynn.	
Shoe workers, plan for a school for, in Lynn,	119-131
Smith's Agricultural School and Northampton School of Technology. <i>See</i> Northampton day industrial School.	
Somerville, investigation among grammar school pupils in,	136
Southbridge, investigation among grammar school pupils in,	136
South Framingham, investigation among grammar school pupils in,	136

	PAGE
Springfield, investigation of grammar school pupils in,	80-83, 136
investigation of high school pupils in,	81-83
inquiries among the parents of pupils in, 83, 84, 88, 89, 90, 154-156	
number of pupils in upper grades of the grammar school in, 136, 143	
pupils in first year of high school in,	143
State legislation on industrial education,	93-98, 164-179
Steam engines, Boston,	46, 47
Brockton,	48
Lawrence,	58, 59, 60, 61
Worcester,	111
Stimson, Rufus W.,	36, 92
Sunderland,	34
Supervision of industrial schools,	22

T.

Taunton, evening industrial school in,	20, 41, 67, 68
investigation among grammar school pupils in,	136
Teachers for industrial schools,	19
Textile industry, Lawrence,	58, 59, 60
Trades, how acquired in Lawrence, 147, 148	
Lynn,	150, 152
Springfield,	154, 155
Worcester,	157, 158
Turner's Falls,	29

W.

Wakefield, investigation among grammar school pupils in,	137
Walpole, progress toward the establishment of an evening industrial school in,	79
Waltham, evening industrial school in,	20, 41, 68-70
investigation among grammar school pupils in,	137
Watertown, investigation among grammar school pupils in,	137
Wendell,	34
Weymouth, investigation among grammar school pupils in,	137
Winslow, Charles H.,	13, 100
Wisconsin, legislation on industrial education in,	98, 176-179
Woburn, investigation among grammar school pupils in,	137
Woods, Robert A.,	13

	PAGE		PAGE
Woodworking and carpentry, Montague,	30, 31, 32, 34	Worcester, industrial training for girls in,	105, 106
Northampton,	40, 41	plan for building for industrial school in,	107
Chicopee,	52, 53	site of proposed trade school in,	108, 109
New Bedford,	66	proposed arrangement of studies and work for the trade school in,	110-114
Pittsfield,	67	disposition of products of the trade school in,	114, 115
Worcester,	111	evening classes in the proposed trade school in,	115, 116
Worcester, progress toward the establishment of a day industrial school in,	76	estimated cost of maintenance of proposed trade school in,	117, 118
investigation of grammar school pupils in,	80, 137	interest of the citizens in a machinists' school at,	90, 103
investigation of high school pupils in,	81-83	number of pupils in upper grades of the grammar school at,	137, 144
inquiries among the parents of pupils in,	83, 84, 90, 91, 145, 157-159	pupils in first year of high school in,	144
report of Worcester commission on a proposed industrial school in,	103-118		
scope of the industrial school for,	104		

**Window Hanging designed for the Massachusetts Building
Jamestown Exposition, 1907
Woven by blind women at the Art Fabric Shop
of the Massachusetts Commission for the Blind, Cambridge, Mass.**

FIRST ANNUAL REPORT

OF THE

MASSACHUSETTS

COMMISSION FOR THE BLIND.

JULY 6, 1906, TO NOV. 30, 1907.

BOSTON:
WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
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1908.

APPROVED BY
THE STATE BOARD OF PUBLICATION.

The Commonwealth of Massachusetts.

REPORT.

To His Excellency the Governor and the Honorable Council.

GENTLEMEN:— The Massachusetts Commission for the Blind begs leave to submit the following report, covering the period between July 6, 1906, and the end of the fiscal year, Nov. 30, 1907.

The commission was established under chapter 385 of the Acts of 1906, the terms of which are set forth in XIII., Appendix A of this report. His Excellency Governor Guild, on July 6, 1906, appointed the persons named below to serve as members of the commission. The Executive Council a week later confirmed the appointments, as follows:—

Dr. Edward M. Hartwell of Boston, for five years.

Miss Helen Keller of Wrentham, for four years.

Miss Annette P. Rogers of Boston, for three years.

Dr. J. H. A. Matte of North Adams, for two years.

Mr. Robert L. Raymond of Milton, for one year.

At the expiration of his term Mr. Raymond declined reappointment, and Mr. James P. Munroe of Lexington was appointed to succeed him.

The commission organized at its first meeting, on July 18, 1906, by the choice of Dr. Hartwell as chairman and Mr. Raymond as secretary. Since its organization the meetings of the commission have usually numbered two a month.

At this point it seems well to indicate the course of events which led to the establishment of the commission, whose primary duty is to promote the welfare of the adult blind.

By chapter 13 of the Resolves of 1899 the State Board of Education was directed to inquire and report upon the feasibility of instructing the adult blind at their homes (see I., Appendix A).

The Legislature of 1899 was led to take this action mainly through the appeal of the late J. Newton Breed of Somerville. Mr. Breed, who had become blind in the prime of life, was keenly alive to the pitiable condition of many of the adult blind in the State, who were rendered unhappy and dependent through lack of occupation. He strove assiduously to have means provided for their home instruction.

The sixty-fourth report of the State Board of Education contained a valuable report, prepared by the secretary of the Board, the late Frank A. Hill, on the "Feasibility of instructing the Adult Blind at their Homes." The report showed that the needs of the adult blind were both genuine and unprovided for, and declared that there was "a considerable proportion of the adult blind for whom home instruction is both feasible and desirable."

In accordance with recommendations of the report, the Legislature of 1900 appropriated \$1,000, "to be expended by the Perkins Institution and Massachusetts School for the Blind for the instruction of the adult blind at their homes," on condition that the plans for such expenditure should be approved by the State Board of Education. It should be noted that the Alumnae Association of the Perkins Institution had undertaken in 1898 to provide home instruction for certain blind women, and had been granted the sum of \$100 by the trustees of the Perkins Institution in aid of their undertaking.

In 1901 the General Court made a further appropriation of \$3,600 for the instruction of the adult blind at their homes (see III., Appendix A); and in 1902, by chapter 297 of the Acts of that year (see IV., Appendix A), authorized the appropriation of \$5,000 annually for the same purpose. Accordingly for several years four blind persons have been enabled to serve the State as home teachers of the blind, with laudable results. Their efforts have been chiefly devoted to teaching writing and the use of embossed type for reading, although some instruction in basketry, sewing, knitting, etc., has also been given.

In 1902 a group of noble women, connected with the Women's Educational and Industrial Union of Boston, became actively interested in the welfare of the adult blind. They enlisted the interest of various philanthropic and public-spirited people, who united with them in organizing the Massachusetts Association for pro-

moting the Interests of the Adult Blind, and in attempting to induce the Legislature to establish some sort of an industrial home for the blind, similar to institutions already maintained or aided by the States of Connecticut, Pennsylvania, Michigan and Wisconsin. At the suggestion of Governor Bates their plans were modified, and the association devoted itself in the early months of 1903 to inducing the Legislature to authorize the appointment of a commission to investigate the condition of the adult blind within the Commonwealth, and report to the Legislature of 1904.

Accordingly, in August, 1903, His Excellency Governor Bates, in conformity with chapter 74, Resolves of 1903 (see VI., Appendix A), appointed a commission consisting of Dr. Edward M. Hartwell of Boston, chairman, Mr. A. H. Hardy of Boston and Miss Agnes Irwin of Cambridge. The commission prosecuted its inquiries by means of: (1) hearings and conferences with representative blind persons and their friends; (2) correspondence with the overseers of the poor in the several cities and towns of the Commonwealth; (3) personal canvass and visitation of the blind in various parts of the State; (4) visits to the principal educational and industrial institutions for the blind east of the Mississippi River; and (5) the study of reports and legislation bearing on the subject.

In its report, which was rendered Jan. 15, 1904, the commission recommended the establishment of a permanent State board, to consist of five persons, with authority: (1) to prepare and maintain a complete register of the adult blind in Massachusetts; (2) to establish a bureau of industrial aid, for the purpose of aiding the blind to find employment and for developing home industries among them; and (3) to establish one or more shop schools, designed to provide suitable instruction and work for the blind.

The Legislature of 1904 received the report, but did not see fit to act upon its recommendations. It did, however, by chapter 87, Resolves of 1904 (see VIII., Appendix A), authorize the appointment of a second commission, to prepare a register of the adult blind, and to investigate and report, on or before Jan. 15, 1905, on the advisability and feasibility of ameliorating the condition of the adult blind by industrial training or establishing of industrial schools, or by any other means. The commissioners of 1903 were constituted the new commission in September, 1904. Finding it

impracticable to complete the work assigned them in the time at their disposal, the commission was continued by chapter 1, Resolves of 1905 (see XI., Appendix A), and given permission to make its report in January, 1906. The Legislature also empowered the Bureau of Statistics of Labor, which was charged to make a census of the State in 1905, to aid the commission in the preparation of its register of the blind, by furnishing it with the names and addresses of the blind recorded by the enumerators of the census.

The report of the commission was rendered on Jan. 15, 1906. It included a register of the blind, together with recommendations and a bill. The recommendations were as follows:—

1. The establishment of a permanent board for improving the condition of the blind. We believe that women and blind persons should be eligible for membership on such a board.

2. That the register and catalogues which we have prepared shall be placed in charge of said board, and that they shall be charged to maintain and perfect the same, to the end that the board may be enabled to serve as a bureau of investigation, information and advice.

3. That the Board shall serve as a bureau of industrial aid, to find new forms of employment for the blind, to aid them in finding work, and to develop home industries among the blind.

4. That the board shall be empowered to establish and manage a system of industrial schools and workshops, for the purpose of affording suitable blind persons instruction and work in the lines of industry best adapted to their needs.

In accordance with these recommendations, we submit the appended bill.

The bill reported by the commission, with slight changes, was enacted as chapter 385, Acts of 1906, and approved by the Governor on May 11 of that year (see XIII., Appendix A).

Following its organization, in July, 1906, the commission proceeded: (1) to secure as office quarters rooms 609 and 610 in the Ford Building, at 15 Ashburton Place, Boston; and (2) to establish two departments for the conduct of its work. The department of registration and information was placed in charge of Miss Lucy Wright of Boston as superintendent, and the industrial department was placed in charge of Mr. Charles F. F. Campbell of Boston as superintendent. Mr. Charles W. Holmes was chosen deputy superintendent of the industrial department. All of these persons were specially qualified for work among and for the blind.

Miss Wright, formerly secretary of the Associated Charities of Taunton, had acted as field agent of the Commission on the Adult Blind in 1904 and 1905, and as special agent of the bureau of Statistics of Labor in 1905; Mr. Campbell had served the Massachusetts Association for promoting the Interests of the Adult Blind as agent in arousing public interest in the adult blind and as director of its experiment station in trade instruction, 1903-06; and Mr. Holmes, a graduate of the Perkins Institution, a blind man, had for some years been a successful teacher at the head of a department in Eastern Township College of Music, Stanstead, Quebec, an institution for seeing persons.

On the expiration of its lease, in August, 1907, the commission, having found its office quarters inadequate, leased room 608 in addition to rooms 609 and 610 in the Ford Building for three years, at an annual rental of \$1,200 for the three rooms. This lease, like all leases taken by the commission, *e.g.*, for shops and salesroom, was duly approved by the Governor and Council.

Whether the number of the blind in Massachusetts is on the increase is a somewhat vexed question, owing to the variance between the published results of the federal and State censuses. The Commission on the Adult Blind published the following in its report: —

The Number of Blind in Massachusetts, by Specified Age Groups.
Absolute Numbers.

By CENSUS OF —	0-19 Years.	20-59 Years.	60 Years or Over.	Unknown.	Totals.	20 Years or Over.	80 Years or Over.
1895, . .	546	1,632	1,799	6	3,983	3,431	400
1900, . .	1,199	707	1,399	7	3,252	2,053	435
1905, . .	354	986	1,457	5	2,802 ¹	2,443	403

Relative Numbers, i.e., Per Cents.

1895, . .	13.71	40.97	45.17	0.15	100.00	86.29	10.04
1900, . .	36.87	21.74	41.17	0.22	100.00	63.13	13.38
1905, . .	12.63	35.19	52.00	0.18	100.00	87.19	14.38

¹ There is reason to believe that this number is too small by upwards of 450.

Inspection of the foregoing discloses an apparent decrease in the period 1895–1905 in the total number of the blind, and in each of the principal age groups. The fluctuations in the absolute and relative numbers from census to census and within the same classes are noteworthy, and suggest the probability that the three sets of figures are not strictly comparable. . . . The number of blind persons to the million of population in Massachusetts, as determined by the United States census, was 893 in 1880, 738 in 1890 and 1,159 in 1900; and as determined by the State census, was 1,843 in 1885, 1,593 in 1895 and 933 in 1905. On the whole, it may be doubted that any very considerable diminution of the relative number of blind in the State has taken place since 1895.

Since the publication of the foregoing the preliminary figures given above for 1900 and 1905 have been replaced by final figures. The federal census ("The Blind and the Deaf, 1900," Washington, 1906) gives 2,217 as the total number of the blind in Massachusetts in 1900, instead of 3,252; and the State census gives 3,676 (Census of 1905, Bulletin 12, the blind) for 1905, instead of 2,802. Accordingly, the number of blind per million of population should be 790 for 1900 and 1,224 for 1905.

The returns of the enumeration of the federal census gave 101,123 as the number of blind persons in the United States in 1900. The revised figures of the federal census are 64,763 or 852 per million of population for the United States; and 2,217, or 790 per million, for Massachusetts, — the elimination for correction amounting to 35.95 per cent. of the preliminary figures for the United States and 31.83 per cent. for Massachusetts. It is altogether probable that the revised figures of the federal census are too small, as the names of 19,884 persons returned as blind, but who failed to reply to the post cards of inquiry sent out by the Bureau of the Census, were eliminated from the revised figures.

According to the revised returns of the State census, the total number of blind for 1905, viz., 3,676, exceeded the preliminary figures by 874, or 31.19 per cent. This increase is partially accounted for by the fact that the Bureau of Statistics of Labor in revising the original returns took account of several hundred names contained in the 3,635 records compiled by the commission on the Adult Blind in 1904 and 1905. The 3,635 records were made up of 2,802 returned by the census enumerators and 833 records by the agents of the commission and of the Association for promoting the Interests of the Adult Blind.

The following statement discloses a wide variance between the

proportional figures published by the federal census and the State census: —

Number of Blind per Million of Population in Massachusetts.

CENSUS OF —	Federal Census.	CENSUS OF —	State Census.
1880,	893	1885,	1,843
1890,	738	1895,	1,593
1900,	790	1905,	1,224

According to the federal census, the relative number of the blind in the State increased 7.05 per cent. in the period 1890–1900; while according to the State census, that number decreased 30.15 per cent. in the period 1895–1905.

Two facts should be noted in connection with these discrepancies: (1) the test of blindness used in the federal census differs from that used in the State census; and (2) the test has been modified in the case of each census. Thus, in the “Report on the Insane, Feeble-minded, Deaf and Dumb and Blind, in the United States at the Eleventh Census: 1890,” it is noted that: —

This result as regards Massachusetts is due to the fact that in the State census the term “blind” included all who “cannot distinguish forms or colors distinctly,” — that is, not only the totally blind, but those with defective vision; while in the United States census only those were reported as “blind” who could not count accurately the number of fingers of another person held up before them at the distance of a foot.

In the instructions to enumerators of the twelfth census of the United States, 1900, the following occurs: —

Should it appear that the sight is so seriously impaired that it is impossible for the person to read a book, even with the aid of glasses, then you will note such person as “blind,” even though, as a matter of fact, he or she may have some slight power of sight.

In taking the Massachusetts census of 1905, the definition provided for the guidance of the enumerators was as follows: —

This class includes persons who by the aid of glasses are yet unable to distinguish form or color, to count the fingers on the hand within one foot from the eye, or read writing or ordinary print. (Bulletin No. 12, The Blind.)

Manifestly, the attempt to draw conclusive inferences as to the precise amount of increase or decrease in the proportional number of the blind in the period 1890–1905 would be hazardous.

It is a popular mistake to suppose that only such persons as cannot perceive light are to be accounted blind. Every school and institution for the blind contains a considerable number of persons who are not totally blind. Thus Dr. C. F. Fraser, superintendent of the Halifax School for the Blind in Nova Scotia, in the twenty-eighth report of that institution says:—

One cannot help being impressed with the popular belief that no one is blind who sees light, and with the idea that this is a school for the blind, and hence it is a school for those who cannot see light. Of the 106 pupils now in attendance at the institution, 25 are totally blind, while the remaining 81 have more or less vision, some being able to distinguish colors and move about with ease, while others can barely distinguish the rays of the noonday sun. So far as education is concerned, these boys and girls are all practically blind, that is, no one of them has sufficient sight to enable them to study in the public schools, and this is the only school in which any of them can be trained so as to become useful men and women.

The 3,983 blind returned by the Massachusetts census in 1895 were classified as follows, by degree of blindness and age:—

	Under 21 Years of Age.	21 Years of Age and Over.	Total.	Per Cent.
Totally blind,	201	1,363	1,564	39.27
Semibind,	375	2,044	2,419	60.73
Totals,	576	3,407	3,983	100.00

Similarly, the 2,217 blind reported by the federal census for Massachusetts for 1900 were classified as follows:—

	Under 20 Years of Age.	20 Years of Age and Over.	Unknown Age.	Total.	Per Cent.
Totally blind,	155	1,104	1	1,260	56.83
Partially blind,	148	806	3	957	43.17
Totals,	303	1,910	4	2,217	100.00

According to the federal census, there were 64,763 blind in the United States in 1900, classified as follows: —

	Under 20 Years of Age.	20 Years of Age and Over.	Unknown Age.	Total.	Per Cent.
Totally blind, . .	4,123	31,363	159	35,645	55.04
Partially blind, . .	4,185	24,802	131	29,118	44.96
Totals, . .	8,308	56,165	290	64,763	100.00

The foregoing statements disclose a fact which has come to be clearly recognized within the last half century; namely, that by far the greater proportion of the blind are adults. Thus, the 3,407 blind persons twenty-one years of age or over in 1895 equalled 85.53 per cent. of all the blind in the State; and similarly, the blind persons twenty years of age or over (1,910) equalled 90.22 per cent. of the total number of blind returned by the federal census of 1900. Again, of the 3,676 blind reported by the State census of 1905, 3,174, or 86.34 per cent., were twenty-one years of age or over. They are subdivided as follows: (1) twenty-one to sixty years, 1,372, or 37.33 per cent. of the whole number of blind; (2) sixty-one to eighty years, 1,377, or 37.46; (3) eighty-one years or over, 416, or 11.31 per cent.; and age not given, 9, or .24 per cent. Speaking broadly, while 9.44 per cent. (357) of the whole number were children, 11.31 per cent. (416) were in their second childhood.

Of the total number of the blind reported by the federal census for 1900, 56,165, or 86.72 per cent., were twenty years of age or over. Furthermore, it is a fact, and a fact of capital importance, that most of the adult blind become blind when adults, and are thereby debarred from entering the schools for the blind, which, contrary to the general impression, are seldom willing to undertake either the literary or industrial education of any who are over twenty.

The first conclusive showing that the majority of the adult blind in Massachusetts became so after school age was made in 1905 by the Commission on the Adult Blind, from whose report the following tabular statement is compiled: —

The Blind in Massachusetts, 1905. — Age Period when Blindness occurred.

PRESENT AGE.	0-19.	20-39.	40-59.	60 or Over.	Not stated.	Unknown.	Total.
0-19 years, . . .	354	—	—	—	—	—	354
20-59 years, . . .	410	283	260	—	33	—	986
60 or over, . . .	71	106	343	906	31	—	1,457
Unknown, . . .	—	—	—	—	—	5	5
Totals, . . .	835	389	603	906	64	5	2,802
0-19 years, . . .	354	—	—	—	—	—	354
20 or over, . . .	481	389	603	906	64	—	2,443
Unknown, . . .	—	—	—	—	—	—	5

Inspection of the foregoing discloses the fact that of the 2,802 blind, included in the preliminary returns of the State census of 1905, 2,443 were adults; of whom 1,898, or 77.69 per cent., became blind after reaching the age of twenty years, against 481, or 19.69 per cent., who became blind before reaching that age.

According to the report on the blind in 1900, published by the federal census in 1906, there were 1,910 adult blind persons in the State in 1900, of whom 1,453, or 76.07 per cent., were reported to have become blind in adult life. In the same report the number of the adult blind in the United States is given as 56,165; and 41,044, or 73.77 per cent., are reported to have become blind after reaching the age of twenty, against 12,326, or 21.94 per cent., who became blind before reaching that age.

It is noteworthy that the larger part of the adult blind in this State may properly be characterized as "aged," inasmuch as 1,457, or 50.63 per cent., of the 2,443 adults included in the last tabular statement are found in the age group sixty years or over. Of that 1,457 it appears that 960, or 66.57 per cent., were at least sixty years old when they became blind. Experience shows that something can be done towards teaching some of the aged blind to read, and giving them occupation; but the blind who are from twenty to sixty years of age are they whose needs should be chiefly considered in seeking to provide industrial training and opportunity for the adult blind.

The register of the blind, which is kept at our office in the Ford Building, on Jan. 1, 1907, contained the records, set forth on

cards, of 3,806 blind persons, — an increase of 130 over 3,676, the number of the blind finally returned by the State census of 1905. As the basis for the register, this commission became possessed, soon after its organization, of about 3,837 cards, which had been prepared by the Commission on the Adult Blind in 1904 and 1905. The cards included: (1) 2,802 transcribed from the preliminary unpublished returns of the census enumerators; (2) the records of 833 cases especially investigated by the agents of the Commission on the Adult Blind and of the Association for promoting the Interests of the Adult Blind; and (3) 202 transcribed from the records of the home teachers of the blind. Necessarily the register is continually changing; the general result is that thus far additions exceed eliminations, although it is likely that the number registered includes some records of persons who have died or removed from the State. This will doubtless be remedied as time goes on, as we have in mind means of securing from local boards and officials, from hospitals and physicians more timely information of deaths among the blind and of the occurrence of new cases of blindness. We particularly hope for the co-operation of the school authorities (under whose auspices the annual school census is taken throughout the Commonwealth) in our attempt to complete our list of the blind children of school age. This is an important desideratum, as the education of a surprisingly large number of blind children is now unduly delayed through the apathy or ignorance of parents and the indifference of school officials. The following statement summarizes the changes in the register of the blind since the report of the Commission on the Adult Blind was made in January, 1905:—

Number of the blind in the State by preliminary returns 1905,	2,802
Additions and corrections to census list,	874
	<hr/> 3,676
Additions and corrections made by this commission, July, 1906,	
to Jan. 1, 1907,	130
	<hr/> 3,806
Changes, Jan. 1, 1907, to Dec. 1, 1907, deduct for deaths 86, re-	
movals 21,	107
	<hr/> 3,699
Add new cases recorded,	208
	<hr/> 3,907
Number registered Dec. 1, 1907,	

It is not claimed that the register is altogether complete, but it is unquestionably the fullest and most useful list yet made of the blind in Massachusetts. It embodies a large and constantly increasing amount of information, obtained through the personal investigation by our agents of individual cases. We have established friendly relations with the Massachusetts Eye and Ear Infirmary, various charitable organizations and the Perkins Institution, with the result that many new cases of blindness are promptly referred to us for advice and aid. By it we are enabled to turn to practical account the returns of the State census, which, prior to the passage of chapter 1, Resolves of 1905, could be used for statistical purposes only, as names and addresses were never divulged.

We have adopted an improved form of record card (see XVI., Appendix B). In addition to the register proper, in which the cards are arranged alphabetically according to the names of the blind, we have had a card index made, in which the names are arranged by cities and towns, so that information can be readily given to applicants who are entitled to receive it. The register has already proved its value as a means of guidance to the commission in its efforts to improve the condition of the blind, and as a source of information to friends of the blind, public officials and students of special problems relating to the causes and prevalence of blindness.

Statistical analysis of the register, as of Jan. 1, 1907, yields the following summary statement:—

REGISTER OF THE BLIND, JAN. 1, 1907.

I. Present Age.

PRESENT AGE.	Number.	Per Cent.
Under 20 years,	434	11.4
20-59 years,	1,401	36.8
60 years or over,	1,971	51.8
Totals,	3,806	100.0

II. Period when Blindness occurred.

PERIOD.	Number.	Per Cent.
Under 20 years,	1,094	28.8
0-1 year,	472	—
1-4 years,	176	—
5-19 years,	446	—
20-59 years,	1,387	36.4
20-39 years,	558	—
40-59 years,	829	—
60 years or over,	1,135	29.8
Not stated,	190	5.0
Totals,	3,806	100.0

III. Cause of Blindness.

PRESENT AGE.	Con- genital.	Disease.	Accident.	Accident and Disease.	Not stated.	Total.
Under 20 years,	112	186	47	2	87	434
20-39 years,	82	311	85	2	86	566
40-59 years,	32	491	142	8	162	835
60-79 years,	25	951	169	15	251	1,411
80 years or over,	6	434	36	5	79	560
Totals,	257	2,373	479	32	665	3,806

*IV. Age Group 20-59 Years.**A. Period when Blindness occurred.*

PRESENT AGE.	0-4.	5-19.	Total.	20-39.	40-59.	Total.	Un- known.	Aggre- gate.
20-39 years, . . .	192	178	370	161	—	161	21	552
40-59 years, . . .	97	106	203	259	328	587	25	815
Unknown, . . .	—	—	—	—	—	—	34	34
Totals, . . .	289	284	573	420	328	748	80	1,401

B. Present Condition.

PRESENT AGE.	Of Inde- pendent Means.	Incapaci- tated.	Probably Helpable.	Doubtful.	Unknown.	Total.
20-39 years, . . .	125	48	373	6	—	552
40-59 years, . . .	339	44	406	26	—	815
Unknown, . . .	—	—	—	—	34	34
Totals, . . .	464	92	779	32	34	1,401

C. Occupation before and since Blindness occurred.

KIND OF OCCUPATION.	Before.	Since.	Change.
Agricultural,	28	27	—1
Commercial,	31	13	—18
Educational and professional, . . .	88	48	—40
Employer,	17	39	+22
Housewife,	139 ¹	163 ¹	+24
Housework,	64 ¹	65 ²	+1

¹ All women.² Includes one man.

C. Occupation before and since Blindness occurred — Concluded.

KIND OF OCCUPATION.	Before.	Since.	Change.
Mechanical,	205	115	—90
Musical,	7	42	+ 35
Unskilled,	170	62	—108
Peddler,	9	29	+ 20
Students,	133	72	—61
No occupation,	476	692	+ 216
	1,367	1,367	—
Not stated,	34	34	—
Totals,	1,401	1,401	—

In the summer and fall of 1907 we had a special investigation made concerning 253 persons, twenty years of age or under, whose names were found in the commission's register of the blind on June 1, 1907. The records of 167 blind persons belonging to the same age group, who were known to be enrolled at the Perkins Institution at that date, were excluded from the investigation, as the purpose of the investigation was to ascertain the needs of blind children outside of schools for the blind, with a view of having their needs provided for.

The inquiry was conducted under the direction of Miss Wright, by four temporary visitors, all women, who were selected because of their experience or special aptitude for the work in hand. A special form for noting the facts determined by the visitors was used (see XVII., Appendix B). Our thanks are due to Dr. W. E. Fernald, superintendent of the Massachusetts School for the Feeble-minded at Waltham, for helpful suggestions as to the form of inquiry. The field work, which involved more than 400 visits, amounted to the service of one person four months.

The investigations of the 253 cases taken from the register yielded the following results, summarily stated: —

Number totally blind,	129
Number partially blind,	42
	<hr/> 171
Number not found,	11
Number dead,	15
Number removed from the State,	9
Number over twenty years old,	4
Number not blind,	39
Number unknown,	4
	<hr/>
Total,	253

The most important results of the investigation may be summarily stated as follows:—

I. *Blind, 129.*

A. Already cared for in public institutions (for defectives or dependents),	13
In Nursery for Blind Babies,	17
In private schools,	2
In workshop for the blind,	1
In good homes:—	
Under school age,	4
Mentally defective,	18
Physically incapacitated,	2
	<hr/> 24
	<hr/> 57
B. Number reported to Perkins Institution,	25
Number reported to Massachusetts School for Feeble-minded,	9
Number reported to Massachusetts Hospital for Epileptics,	1
Number reported to Massachusetts Nursery for Blind Babies,	7
Number reported to State home teachers of blind,	4
Number reported to industrial department of Commission for the Blind,	4
	<hr/> 50
C. Cases for further consideration:—	
Mental condition to be determined,	2
Blindness possibly remediable or degree undetermined,	16
Investigations pending,	4
	<hr/> 22
	<hr/> 129

II. *Partially Blind, 42.*

Having seriously defective sight, and requiring further investigation or treatment,	42
	<hr/>
Total,	171

By no means all of the 50 children reported to the institutions specified above have been admitted, but the suitability of the cases has been acknowledged, and the children are being admitted as rapidly as vacancies occur and as parents can be induced to take action. Through our intervention, 7 of the 42 having defective sight have received medical care.

The discovery by our agents of 25 fit candidates for admission to the Perkins Institution and Massachusetts School for the Blind emphasizes the need, originally pointed out by the Commission on the Adult Blind, of more effective measures than have hitherto obtained for securing the timely admission of the young blind into the special schools already provided for them by the State. We confidently expect to secure the co-operation of the State Board of Education and of local school officials in devising and carrying out such measures. Of the 25 persons reported to the Perkins Institution, 19 were born in Massachusetts and 16 were over ten years of age, and 6 of these were over fourteen years of age. Assuming that a beginning has now been made in the education of this group, it still remains that the beginning has been delayed, on the average, about four years, because of the neglect of parents and school authorities.

Of the 25 persons referred to, 20 were of foreign and 3 of native parentage, while the parentage of two others was "unknown" or not stated; in 13 cases the parents were Canadian French; the parents of the remaining 7 cases were reported as English, Scotch, Irish, German, Italian, Swedish and Portuguese respectively.

The Commission on the Adult Blind pointed out that the education of blind children was not compulsory in Massachusetts, as it was in some other States. The law relative to compulsory education, viz., section 1, chapter 44 of the Revised Laws, was amended in 1906 by chapter 383 of the Acts of that year (see XII., Appendix A). The essential part of the amendment reads: "No physical or mental condition which is capable of correction or which renders the child a fit subject for special instruction at public charge in institutions other than the public schools shall avail as a defense," etc., for failure of any child between seven and fourteen years of age to attend a public day school.

It may be remarked in passing that experience has shown, *e.g.*, in Chicago and Milwaukee, that by well-directed effort much

more can be accomplished towards teaching the blind and seeing together in public day schools than has usually been supposed.

The number of blind persons belonging in Massachusetts, of the age group 0-20 years inclusive, on Nov. 30, 1907, may be given as 357. That number is made up of 129 included in our register June 1, 167 who were then pupils at the Perkins Institution, and 61 whose names were added to the register between June 1 and Nov. 30, 1907. It may be noted here that the total number of blind at the Perkins Institution always includes a considerable number from other States.

The 357 young blind may be classified by age periods as follows:—

AGE PERIOD.	Number.	Per Cent.
0-4 years,	32	9.0
5-16 years,	230	64.5
17-20 years,	91	25.5
Unknown,	4	1.0
Totals,	357	100.0

Of the 129 specified above, 42, or 32.55 per cent., were found to be unsound mentally; that is, 40 were either mentally defective or backward, 1 was epileptic and 1 was insane. The proportion of mentally defective, using the term in its general sense, to the whole number of young blind, viz., 357, was 11.76 per cent. What proportion of the blind in the age groups twenty to fifty-nine and sixty or over are weak in mind or defective as respects one or other of the organs of special sense cannot be stated; indeed, it cannot be determined without the aid of experts in psychiatry and neurology. Of the 357 young blind, 193, or 54.06 per cent., became blind before reaching the age of one year. It does not appear how many of them owed their blindness to ophthalmia of the newborn (which is a preventable infectious disease), and one of the most prolific causes of blindness; but it is quite probable that a large proportion, say from one-third to one-half, were rendered blind by preventable causes.

We have had a leaflet printed for distribution among parents, which contains practical directions and advice derived from an expert in the care and training of blind children; but the limitation of infectious diseases can only be accomplished through the combined efforts of physicians and boards of health. Preventable blindness occurs most frequently among the vicious, the ignorant and the uncleanly classes. It is gratifying to note that the American Medical Association has recently appointed a special committee to consider preventable blindness and to recommend practicable measures of prevention.

Chapter 75, section 49, of the Revised Laws, as amended by chapter 251, Acts of 1905 (see X., Appendix A), now makes it the duty of nurses, relatives or other attendants, as well as physicians, to make prompt report to selectmen and boards of health in case any infant under their charge, within two weeks after its birth, should show the symptoms which characterize ophthalmia neonatorum.

Once it was organized and in possession of office quarters, the commission took up the industrial side of its work. We found only four agencies actively engaged in the attempt to improve the industrial condition of the blind. They were: (1) the work shop for adults, in South Boston, where, thanks to the co-operation of the Perkins Institution, a group of blind men ranging from 15 to 20 had made fair wages for many years in caning chairs and making and repairing mattresses; (2) the salesroom of the Perkins Institution, at Boylston Street, conducted for the convenience of patrons of the work shop at South Boston. The salesroom also rendered substantial service to the Alumnae Association of the Perkins Institution, whose efforts to provide blind women with work in their homes has been already alluded to; (3) the experiment station for the trade training of the blind, maintained at Massachusetts Avenue, Boston, by the Massachusetts Association for promoting the Interests of the Adult Blind, for the purpose of testing the value of hand weaving as a remunerative occupation for blind women and men; and (4) the work shop for the blind at Pittsfield, started in 1905 by a local branch of the Massachusetts association. All but the work shop for adults at South Boston were still in the experimental stage, and in need of adequate financial support.

We soon decided to undertake the maintenance of the experiment station and the shop at Pittsfield. Accordingly, having concluded the necessary negotiations, based on full and explicit statements of their financial condition, the commission assumed their maintenance and liabilities and took over their assets at a fair appraisal. The experiment station was taken over on Sept. 1, 1906, the amount paid for stock, plant, etc., being \$3,164.04; and the Pittsfield shop was taken over as of Sept. 1, 1906, at a cost of \$110.21.

During the past year both have been moved into larger and more convenient quarters, and both have been reorganized. On Dec. 13, 1906, we opened a salesroom for the benefit of our industries at 383 Boylston Street, Boston, in two rooms on the second floor leased from the Perkins Institution, whose salesrooms are located on the first floor of the same building.

In June, 1907, the commission became responsible for the conduct of the work (originally begun by the Alumnæ Association of the Perkins Institution) of promoting home industry among blind women in various parts of State. This work consists in procuring orders for sewing, knitting, etc., furnishing and preparing materials to be finished, receiving consignments and remitting monthly the proceeds of sales. Through the salesroom we have also been enabled to aid certain blind men to market baskets, cabinet work and wire work. The taking over and enlargement of this branch of our work necessitated the lease of a third room, at 383 Boylston Street, from the Perkins Institution.

The experiment station of the Massachusetts association was started in the fall of 1904, for the general purpose of discovering and testing new forms of industry for the blind, and more particularly for determining what could be done to promote the industrial efficiency of blind women. The degrees of success achieved by the experiment station under the superintendence of Mr. Campbell in teaching blind women to weave artistic linens on hand looms, and the prospect of a fair market for the rugs produced by blind men on hand looms, led us to take over the experiment station for the purpose of continuing the experiment till a decisive conclusion as to its value could be reached. When taken over by the commission, the station occupied an old dwelling house at 678 Massachusetts Avenue, in the South End of Boston, in which about 1,850 square feet of floor space were availed of for the em-

ployment of 8 blind men and 8 blind women. The place was not only inadequate for the existing needs of the superintendent, foremen, designers, weavers and mop makers, but did not admit of alterations that might render it a suitable and convenient place for more extended operations and the employment of more blind operatives. After careful search, new quarters were secured on a three years' lease: (1) in a factory building at 686 Massachusetts Avenue, near Central Square, in Cambridge, for the men's shop; and (2) at 277 Harvard Street, corner of Inman Street, Cambridge, for the women's shop. The removal to Cambridge was effected in the spring of 1907, thereby affording us about 7,500 square feet of floor space suitable for our purpose.

It should be noted that most of the blind persons employed in the shops or in attendance on the classes in cobbling, basketry and broom making live in Boston or in its neighborhood, and utilize the street cars in coming and going from their work. For others, however, and more particularly apprentices and workers from outside the metropolitan district, boarding places have been secured in Cambridge. The problem of meeting the needs of homeless blind women employed in the shop is a serious and somewhat perplexing one; but we are likely to solve it. It should be said that Mr. and Mrs. Campbell, who live in Cambridge, at 277 Harvard Street, have been singularly zealous and successful in securing suitable boarding places for those who had best live within easy distance of their daily work, and in promoting their happiness and welfare.

An efficient seeing man was placed in charge of the Pittsfield shop as superintendent, and a competent blind man was made foreman and instructor in chair caning and the renovation of mattresses. In June, 1907, the old Pittsfield shop was given up, and new quarters, affording 1,420 square feet of floor space (an increase of 486 square feet), on the ground floor of a new building on Dunham Street were secured. We have utilized the Pittsfield shop chiefly for the instruction of blind men who were willing to learn to reseat chairs, or who needed further instruction and practice in that craft. Under Mr. Rowland's energetic management the business of the shops has been substantially increased, and the wisdom of the removal into more commodious and expensive quarters amply justified.

The commission has desired from the first to establish small

shops in various cities of the State, as it believes that by well-directed effort, and at relatively small expense, remunerative work can be secured near their homes for small groups of blind men, such as are found to be in most of the larger cities of the State. The success of such shops will depend largely on securing competent foremen and capable workmen. To find and test such persons requires patient search and trial; but our agents have shown much skill and zeal in studying local needs and possibilities, and are rapidly increasing their personal acquaintance among the blind.

Profiting by the experience gained from reorganizing and extending the operations of the Pittsfield shop, we hope to establish other shops like it as fast as it shall appear feasible and wise to do so. As at present advised, we consider it desirable to stimulate local interest in the welfare of the local blind, and to aid the blind to gain the patronage of their neighbors and fellow townsmen, rather than to attempt to organize establishments in which relatively large numbers of the blind would be gathered together as factory hands among strangers.

We shall do our best to promote home industries for the blind. It is not a very difficult matter to teach blind women to do hand weaving. We shall test the question whether they can profitably operate hand looms in their homes. If they can, a notable addition will be made to the resources of blind women who are now struggling to eke out their slender means by doing plain sewing, knitting and crocheting for our salesrooms in Boston.

At the close of 1907 the total number of blind employees receiving wages in our shops was 27, besides 15 pupils and apprentices, most of whom were receiving aid towards their living expenses during their pupilage. We have paid the school fees, including board, in schools for the blind, of three young men who stood in especial need of the training which can be had at present only in a school for the blind. As these young men were all above twenty years of age, and therefore could not be admitted to the Perkins Institution at South Boston, 1 was sent to the Connecticut Institute and Industrial Home for the Blind at Hartford, and the other 2 to the Halifax School for the Blind in Nova Scotia.

The industries now conducted by the commission in Cambridge are rug, mop and broom making and cobbling (as a home indus-

try) for the men, and art fabric weaving and telephone operating for the women; and in Pittsfield chair caning and mattress renovating for men.

Three-fourths of the upper floor of the men's shop, which is 70 by 50 feet in area, are devoted to rug making. In the Boston shop there were but three rug looms and no space for storage. In the new quarters there are nine single looms and one double width loom, upon which rugs up to 10 feet in width can be made. There is a large finishing and stock room also. The rugs are woven by hand, upon the principle of the old-time rag-carpet weaving. In the place of rags new materials are used, and a definite design with selected colors is worked out in each rug. The blind men are helped to arrange the figures accurately in the rugs by seeing persons. For special orders both designs and colors are made to harmonize with the furnishings in the house in which the rugs are to be used. The designs are made by seeing persons who have had special professional training.

In Boston it was practicable to give employment to only 2 blind rug makers. Since the transfer to Cambridge in April, 1907, 6 additional men have been taken into the shop, and others will be admitted as the business increases.

We make a specialty of the "Wundermop," which was invented by one of our workmen, and a patent secured upon it by the Massachusetts Association for the Blind. It is easy for blind men to make mops, and if raw material can be secured at advantageous prices, the industry ought to prove of value to the blind. Three men have been employed in the manufacture and 2 in the selling of mops, for which there is a growing demand.

How to secure remunerative employment for blind women is one of the most difficult problems confronting those endeavoring to aid the sightless. When hand weaving was undertaken by the Massachusetts Association, it was in the hope of enlarging the opportunities of blind women and elevating the standard of their workmanship. No attempt is made to compete with the product of power looms. Their work is somewhat akin to hand embroidery. As the women weave the cloth, they are able to work out the designs with a small amount of seeing supervision. Articles woven by the blind in our shops have been exhibited side by side with the best examples of similar arts and crafts products made by the

seeing, and have been sold on their intrinsic merit. The women have shown marked ability not only in workmanship but also in creating designs. Eight of the 12 blind women weavers have originated motives of such merit that they could be utilized to advantage in salable articles.

The commission sent to the Jamestown Exposition a considerable exhibit of rugs and art fabrics in linen, which had been produced in the Cambridge shops. In two rooms of the Massachusetts exhibit the window hangings were woven to order in the women's shop from special designs.

The frontispiece of this report is introduced to give an idea of the skill attained by the blind weavers in the employ of the commission.

As was to be expected, the applications made to the commission for aid or information have been varied and numerous, and our meetings have been largely taken up in considering the needs and circumstances of individuals. Our study of the situation and the results of the investigations instituted through our agents, who, be it said, are to be highly commended for their assiduity, energy and intelligence in meeting the demands of an essentially novel situation, have raised some important and interesting questions. It is the part of wisdom, for the present, to admit the lack of adequate and decisive evidence for settling such questions as (1) What proportion of the unoccupied and necessitous blind are handicapped by other ailments and defects than loss of sight? (2) What are the reasons for the apparently high death-rate of the blind as a class? (3) To what extent is the dependent condition of so many of the blind attributable to preventable or remediable causes?

The following statements may serve to indicate the kinds of occupation in which we find the blind engaged, and the nature of the measures called for in attempting to improve their condition. These statements are based on notes made by the deputy superintendent of the industrial department, Mr. Holmes, whose time has been mostly devoted to dealing with male applicants and to devising measures for their relief.

Occupations of the Applicants.

OCCUPATION.	Number.	OCCUPATION.	Number.
Chair seaters: —		Academic or scholastic, .	11
Cane seaters, . . .	83	Teachers, . . .	7
Pith seaters, . . .	13	Total, . . .	18
Rush seaters, . . .	3	Mechanical pursuits: —	
Splint seaters, . . .	7	Cobblers, . . .	5
Total, . . .	106	Weavers, . . .	8
Commercial occupa- tions: —		Basket makers, . . .	8
Agents or canvassers, .	10	Box makers, . . .	4
Vendors, . . .	16	Broom makers, . . .	12
Merchants, . . .	15	Cabinet makers, . . .	5
Proprietors, . . .	3	Hairpin makers, . . .	2
Total, . . .	44	Hammer makers, . . .	1
Musical pursuits: —		Match makers, . . .	4
Professional musicians, .	15	Mattress makers, . . .	20
Music teachers, . . .	12	Mop makers, . . .	4
Piano tuners, . . .	33	Upholsterers, . . .	8
Total, . . .	60	Total, . . .	81
		Engaged in housework, .	7
		Agriculture, . . .	4
		Engaged in unskilled work,	29

Character of Application.

APPLICATION FOR —	Number of Applicants.	Number helped.
Information or advice,	43	39
School training,	3	3
Industrial training,	72	57
Loan of tools, machinery, etc.,	26	22
Aid in increasing patronage,	49	19
Employment,	85	68
Aid to become agents or canvassers,	16	11
Aid in securing boarding places,	27	27

The following summary outlines what has been done for applicants from the opening of the office to the end of the fiscal year 1907: —

Aug. 1, 1906, to Nov. 30, 1906,	105
Dec. 1, 1906, to Nov. 30, 1907,	593
Total,	698
Total number benefited Aug. 1, 1906, to Nov. 30, 1907,	464

1. Through educational and industrial aid: *i.e.*, training as apprentices in chair work, broom making, rug making, cobbling, etc.; or equipment for home work, kit for cobbling, stock for small stores, loan of Braille machines, sewing machines, etc.: —

Training at Cambridge or Pittsfield,	53
Equipment,	15

2. Through employment: —

(1) In Cambridge shops as mop makers, rug weavers, etc.,	26
(2) In Pittsfield shop, chair work, etc.,	7
(3) Factory positions,	4
(4) Other shops,	4
(5) Increased patronage,	7
(6) Mop agents,	7

3. Through salesroom (in addition to sales of manufactured goods from shops): —

(1) Women consignors already benefited,	76
(2) Men consignors already benefited,	8

4. Through special inquiry concerning those twenty years of age and under not in schools for the blind,	170
Other children dealt with,	7
5. Referred to State home teachers,	30
6. Homes, private permanent homes,	2
7. Indirectly helped through private persons and other societies in relief, vacations, symphony concert tickets, medical aid, important information, etc.,	63
	<hr/>
	¹ 479

A more detailed analysis of industrial aid given to individuals is as follows: —

Educational and Industrial Aid, Aug. 1, 1906, to Nov. 30, 1907.

Total amount appropriated by votes of the commission in *individual cases* (not including general expenses of cobbling classes, etc.), for both training and equipment, \$3,894 96

ACTUALLY EXPENDED.	Training (Apprentices' and Pupils' Board).	Equipment (Stock and Equipment).	Sundries.
Sept. 1, 1906, to Nov. 30, 1906, .	\$284 80	\$42 87	\$3 60
Dec. 1, 1906, to Nov. 30, 1907, .	1,734 55	577 39	29 59
	\$2,019 35	\$620 26	\$33 19
			620 26
			2,019 35
			<hr/>
			\$2,672 80
Actual refunds towards training, .	—	\$48 47	
Actual refunds towards equipment, .	—	18 00	
			66 47
			<hr/>
			\$2,739 27

¹ This is not an absolute figure, as some individuals appear as benefited in more than one way.

Statement regarding Blind Persons benefited by Educational and Industrial Aid, Aug. 1, 1906, to Nov. 30, 1907.

1. By necessary expenses during training: —

a. At Cambridge shops: —

Men: as mop makers,	1
as rug makers,	4
as broom makers,	4
Women: as hand weavers,	4

b. At Pittsfield shop: —

Men: as chair workers,	14
as mattress makers,	4

c. In special classes: —

As basket makers,	5
As cobblers,	10

d. Training elsewhere: —

Massage,	1
Broom making,	1
Piano repairing at piano factory,	1
Educational aid at other schools,	4
Under Robertson,	1
Phonograph,	1
Perkins Institution,	2
Telephone school,	1

2. In equipment (tools, stock, etc.): —

a. Kit for broom making,	1
b. Kit for cobbling,	6
c. Sewing machines,	2
d. Braille writers for home work,	3
e. Kit for coffee business,	2
f. Stock for small shop,	2
g. Stock for other commercial purposes,	1
h. Transportation to facilitate work,	1
i. Equipment for chicken raising, etc.,	2
j. Printing of business announcements,	1
k. Materials for home work, reed, cane, etc.,	3
l. Broom corn for broom shop,	1

83

Of these, 15 persons have received aid in more than one form, . . . 15

Actual number of persons benefited, 68

Instances might be multiplied, but the following may suffice to indicate the sort of cases which have been aided through the efforts of the deputy superintendent: —

"A" is an excellent piano tuner, with a small clientage. A position has been secured for him in a piano factory, where he is giving good satisfaction. He was started at a wage considerably in excess of his average earnings, and was raised at the end of a short period.

"B" worked in a well-known shoe factory before losing his sight, a few years since, and the management have been persuaded to take him on again, giving him certain processes which all admit he can perform without sight.

"C" was a foreman in an upholsterer's establishment before blindness, and for him an opening has been secured in a first-class hotel, to take charge of its furniture and mattresses, which position, for reasons of his own, he has not yet accepted.

For "D" a position was obtained as helper in a lumber yard, where his duties were to assist in piling boards, loading teams, etc. This work he did successfully and to the satisfaction of his employer, till the mistaken sympathy offered by the other workmen became an element which had to be dealt with by the dismissal of our man.

"E" has been found a position with a large manufacturing concern, broad-minded enough to give us such an opportunity.

"F" is an illustration of our effort to develop home industry. He had learned the broom maker's trade in earlier years, and the commission has agreed to procure an outfit of tools and materials, which will be loaned to him as soon as certain stipulated conditions have been met by his friends.

"G" represents a different phase. His property was mortgaged, and he feared foreclosure. Assistance was rendered in placing the mortgage in safe hands.

"H," a young man needing academic education, being beyond the age limit at which he could be received by the Perkins Institution, was sent to school in an institution which has no such limit set.

Appreciating the tentative and experimental nature of the work with which it was charged, the commission felt that an adequate system of accounting was indispensable. Accordingly an expert accountant was employed to devise and install a set of books so classified and arranged as to enable us to determine promptly and accurately the cost and industrial value of the several branches of work we had undertaken, *e.g.*, educational and industrial aid, classes in cobbling shoes, and the manufacture of art fabrics, rugs, mops and brooms. The system of accounts adopted works well in practice, and has been commended by the State Auditor, who has manifested much interest in our work, and whose helpful advice at every stage of our undertaking the commission is glad to gratefully acknowledge.

Of the \$20,000 appropriated by chapter 385, Acts of 1906, the

sum of \$1,969.42 was returned to the treasury of the Commonwealth.

The commission was granted two appropriations by chapter 174, Acts of 1907, viz.: \$15,000 for the maintenance of industries, and \$25,000 for general administration, industrial and educational aid, etc. (see XV., Appendix A). The appropriation of \$15,000 was all expended; of the appropriation of \$25,000, the sum of \$3,623.89 was returned to the treasury of the Commonwealth.

By chapter 173, Acts of 1907, the act of 1906 was amended, and the commission was empowered: (1) to draw for working capital not more than \$5,000 at one time; and (2) to use all moneys received from the sale of any products of its workshops for the purpose of carrying on its industries.

We subjoin a series of statements derived from our books of account, which may serve to indicate the extent and character of the financial operations of the commission for the two years under review, and the financial condition of the industrial department on Nov. 30, 1907.

FINANCIAL STATEMENTS.

I. DISBURSEMENTS, MASSACHUSETTS COMMISSION FOR THE BLIND, AUG. 1, 1906, TO NOV. 30, 1906.

Administration:—

Salaries and wages,	\$2,210 56	
Travel,	440 81	
Rent,	310 59	
Incidentals,	209 06	
	<hr/>	\$3,171 02

Furnishings and fixtures,	1,070 05	
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Registration and information:—

Salaries and wages,	\$91 05	
Incidentals,	11 00	
	<hr/>	102 05

Industrial and educational aid:—

Apprentices and pupils,	\$284 80	
Stock furnished,	42 87	
Incidentals,	3 60	
	<hr/>	331 27

Experiment station:—

Salaries to seeing,	\$227 29	
Wages to blind,	92 56	
Rent,	49 99	
	<hr/>	

<i>Amounts carried forward,</i>	\$369 84	\$4,674 39
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<i>Amounts brought forward,</i>	\$369 84	\$4,674 39
Light, heat and telephone,	163 56	
Travel,	21 26	
Incidentals,	264 10	
		818 76
Furnishings and fixtures,		176 37
Purchase of plant of Massachusetts Association for Adult Blind,		3,164 04
Liabilities of Massachusetts Association for Adult Blind,		857 64
Salesroom: —		
Incidentals,		90 50
Furnishings and fixtures,		957 58
Mop shop: —		
Merchandise purchases,	\$1,781 97	
Blind labor,	239 33	
Seeing labor,	167 78	
Commissions and royalties on sales,	256 41	
General expense,	48 28	
		2,493 77
Mop plant account,		35 00
Mop department furnishings,		4 50
Rug shop: —		
Merchandise purchases,	\$1,276 49	
Blind labor,	215 02	
Seeing labor,	286 75	
General expense,	38 34	
		1,816 60
Rug plant account,		459 23
Linen shop: —		
Merchandise purchases,	\$297 15	
Blind labor,	349 46	
Seeing labor,	532 46	
General expense,	40 15	
		1,219 22
Linen plant account,		652 57
Pittsfield shop: —		
Merchandise purchases,	\$33 28	
Blind labor,	75 00	
Rent,	34 00	
General expense,	8 50	
		150 78
Pittsfield plant account,		110 21
Janitors' supplies department: —		
Merchandise purchases,	\$285 88	
Commissions to blind,	48 63	
		334 51
<i>Amount carried forward,</i>		\$18,015 67

Amount brought forward,	.	.	.	.	.	.	\$18,015 67
Track broom department:—							
Merchandise purchases,	.	.	.	.	.	\$10 60	
Blind labor,	.	.	.	.	.	1 44	
Sundries,	.	.	.	.	.	2 87	
							14 91
Total,	.	.	.	.	.	.	\$18,030 58
Appropriation for 1906,	.	.	.	.	.	\$20,000 00	
Disbursements,	.	.	.	.	.	18,030 58	
Turned back to Treasurer of Commonwealth,							\$1,969 42

II. APPROPRIATION FOR GENERAL EXPENSES, 1906-07. — DISBURSEMENTS, DEC. 1, 1906, TO NOV. 30, 1907.

Administration Department, — General Offices.

Salaries (two seeing superintendents, one blind deputy superintendent, one-third of salary of another deputy superintendent, and salary of stenographer),	\$6,335	86
Rent and telephone,	1,222	55
Travelling expenses,	1,496	39
Incidentals (postage, supplies, express, sundries),	833	31
		<hr/>
	\$9,888	11

Registration and Information.

Salaries (clerical),	.	.	.	.	.	\$527 30
Travelling expenses,	.	.	.	.	.	91 78
Incidentals,	.	.	.	.	.	87 93
						<hr/> 707 01
						<hr/> \$10,595 12

Industrial and Educational Aid.

a. General (including cases and classes):—

Board and tuition paid for apprentices and pupils,	\$1,734 55	
Stock and tools furnished to apprentices and pupils (helping them to establish themselves),	577 39	
Incidental expenses (guiding, sundries, etc.),	29 59	
Payment toward telephone training school at linen shop,	40 47	
Merchandise and instruction for training in special home industries,	81 64	
	<hr/>	<hr/>
Amounts carried forward,	\$2,463 64	\$10,595 12

Amounts brought forward, . . . \$2,463 64 . . . \$10,595 12

Cobbling class: —

Materials,	.	.	\$114 68	
Instruction,	.	.	252 00	
Rent (since Sept. 1,				
1907),	.	.	36 00	
General expenses,	.		4 10	
Equipment,	.	.	129 42	
				536 20

Basketry class: —

Materials,	.	.	\$29 31	
Instruction,	.	.	34 50	
Sundries,	.	.	50	
				64 31

6 Braille writers,	.	.	\$78 30	
Sewing machine, etc.,	.	.	13 65	
				91 95

Reimbursement to janitors' supplies

department for cost of operation,	.		312 76	
Toward maintenance of salesroom,	.		1,111 71	
				\$4,580 57

b. Broom shop: —

Raw material,	.	.	.	\$208 07	
Rent, heat, etc.,	.	.	.	53 37	
Wages to blind,	.	.	.	186 98	
Incidentals,	.	.	.	20 05	
Equipment (machinery, etc.),	.	.	.	84 92	
					553 39

c. Home industries for women: —

Raw material and finished goods,	.		\$971 93	
Paid to blind women,	.	.	175 00	
Paid to seeing workers,	.	.	160 44	
Rent for November,	.	.	45 00	
Advertising,	.	.	49 25	
Travelling expenses,	.	.	18 85	
Incidentals (including repairs at sales-				
room),	.	.	111 63	
Fitting up of salesroom,	.	.	193 06	
				1,725 16
				6,859 12

Pittsfield School for Apprentices.

Merchandise purchases,	.	.	.	\$961 63	
Paid to blind,	.	.	.	984 87	
Salaries to seeing,	.	.	.	346 80	
<i>Amounts carried forward,</i>	.	.	.	\$2,293 30	\$17,454 24

<i>Amounts brought forward,</i>	\$2,293 30	\$17,454 24
Rent,	327 74	
Travelling expenses,	27 25	
General expenses (including express, sundries, supplies, teaming, lighting shop, and repairs incident to moving),	559 22	
Additions to plant,	112 76	
		<u>3,320 27</u>

Additions to General Furnishings and Office Equipment.

This amount covers the cost of an adding machine, special display frames for Jamestown, and a phonograph for the use of the blind deputy superintendent and typewritist at office,	642 10	
		<u>\$21,416 61</u>
Less charges paid from appropriation for industries in the form of stock and supplies,	40 50	
		<u>\$21,376 11</u>
Total net charges,		\$21,376 11
Appropriation for general expenses,	\$25,000 00	
Net charges,	21,376 11	
Turned back to Treasurer of Commonwealth,		<u>\$3,623 89</u>
Assets in the form of stock, equipment and accounts receivable amount to		\$4,000 67

III. SUMMARY OF OPERATIONS OF THE INDUSTRIAL DEPARTMENT,
DEC. 1, 1906, TO NOV. 30, 1907.

Art fabric shop,	\$2,270 73
Rug shop,	784 56
Mop shop,	1,838 55
Janitors' supplies department,	91 68
Track broom department,	26 41
Salesroom,	1,292 96
General expense account,	2,294 06
Broom shop (as industrial department),	86 54
	<u>\$8,685 49</u>
Gross cost of operation,	\$8,685 49
Interest on deposits at Beacon Trust Company,	8 55
	<u>\$8,676 94</u>
Net cost of operation,	\$8,676 94
Depreciation of plants and furnishings, including experiment station, incident to moving,	1,108 02
	<u>\$9,784 96</u>
Add difference between manufacturing and selling price of salesroom merchandise inventory,	1,140 46
	<u>\$10,925 42</u>
Total net cost of maintenance,	\$10,925 42

IV. CONDENSED STATEMENT OF RESULTS, DEC. 1, 1906, TO NOV. 30, 1907.

Total merchandise cash purchases,	\$9,302 26	
Received from other departments as purchases,	6 22	
Total cash purchases for plants,	1,405 26	
Total labor selling and manufacturing expense,	16,965 16	
Total operating cost,	<u> </u>	\$27,678 90
Total sales,	\$12,150 14	
Inventories, Nov. 30, 1907,	\$8,522 34	
Inventories, Nov. 30, 1906,	4,370 54	
Add gain in inventories,	<u> </u>	4,151 80
Plants, Nov. 30, 1907,	\$4,187 84	
Plants, Nov. 30, 1906,	3,744 85	
Add gain in plants,	<u> </u>	442 99
		<u>16,744 93</u>
		\$10,933 97
Less interest gained on deposits and credited to profit and loss account,		8 55
Net cost,		<u>\$10,925 42</u>

Analysis of Labor, Manufacturing and Selling Expenses.

Labor, blind,	\$4,235 01	
Commissions to blind,	1,241 37	
Royalties to blind (ten months),	185 67	
Total paid to blind persons,	<u> </u>	\$5,662 05
Salaries to seeing persons,		6,241 58
General expenses,		5,061 53
Total,		<u>\$16,965 16</u>

V. INDUSTRIAL DEPARTMENT, MASSACHUSETTS COMMISSION FOR THE BLIND. — FINANCIAL CONDITION NOV. 30, 1907.

Assets.

Cash,	\$541 99	
Accounts receivable,	1,371 53	
Special accounts receivable,	34 00	
Merchandise on hand as per inventories: —		
Art fabric shop,	\$1,300 88	
Rug shop,	3,839 53	
Mop shop,	1,027 34	
Salesroom (at cost),	2,293 20	
Amounts carried forward,	<u>\$8,460 95</u>	\$1,947 52

<i>Amounts brought forward,</i>	.	.	.	.	\$8,460 95	\$1,947 52
Track broom department,	.	.	.	.	42 49	
Janitors' supplies department,	.	.	.	.	18 90	
						<u>8,522 34</u>
<i>Plants: —</i>						
Art fabric,	.	.	.	.	\$1,492 74	
Rug,	.	.	.	.	1,260 17	
Mop,	.	.	.	.	347 88	
Salesroom,	.	.	.	.	1,087 05	
						<u>4,187 84</u>
Total assets,	.	.	.	.	.	\$14,657 70
<i>Liabilities.</i>						
Accounts payable,	.	.	.	.	\$777 59	
Special accounts payable,	.	.	.	.	23 37	
						<u>800 96</u>
Net assets Nov. 30, 1907,	.	.	.	.	.	\$13,856 74
Net assets Nov. 30, 1906, were as follows: —						
Accounts receivable,	.	.	.	.	.	\$1,120 11
<i>Merchandise as per inventories: —</i>						
Linen,	.	.	.	.	\$1,187 68	
Mop,	.	.	.	.	1,349 63	
Rug,	.	.	.	.	1,734 58	
Janitors' supplies,	.	.	.	.	55 79	
Track broom,	.	.	.	.	42 86	
						<u>4,370 54</u>
<i>Plants and furnishings: —</i>						
Experiment station,	.	.	.	.	\$1,167 83	
Linen shop,	.	.	.	.	755 82	
Mop shop,	.	.	.	.	202 74	
Rug shop,	.	.	.	.	660 48	
Salesroom,	.	.	.	.	957 98	
						<u>3,744 85</u>
Total,	.	.	.	.	.	\$9,235 50
Capital invested in 1907.						
Appropriation for industries,	.	.	.	.	\$15,000 00	
Revenue of last year returned by Treasurer of						
Commonwealth,	.	.	.	.	590 46	
						<u>15,590 46</u>
<i>Amount carried forward,</i>	.	.	.	.	.	\$24,825 96

<i>Amount brought forward,</i>						\$24,825 96
Less mops sent to administration office,					\$3 30	
And less assets in the form of stock and furniture, which appear to credit of Pittsfield school for apprentices, but which were paid for from in- dustries appropriation,				40 50		43 80
Net assets and capital,						\$24,782 16
Net assets Nov. 30, 1907,						13,856 74
Total net cost of maintenance (see summary),						\$10,925 42

In undertaking to occupy a comparatively new and untried field, much of our work has been of the preliminary sort. We have endeavored : (1) both to acquire and impart information concerning the agencies already existing in the State that may be availed of to promote the educational and industrial interests of the blind; (2) to establish close and friendly relations with such agencies, for the sake of co-operation, and particularly that we may be promptly notified of all new cases of blindness, especially when the afflicted person is an adult, under sixty and a wage-earner; (3) to discover and test new forms of employment in which the blind may be encouraged to engage; (4) to convince employers of seeing labor that blindness is not nearly so often a sufficient reason for refusing employment as is taken for granted; (5) to reorganize and strengthen the Cambridge and Pittsfield shops as centers of instruction and production; (6) to develop a wider and surer market for the products of our shops; (7) to organize and aid groups of blind workmen to secure occupation and wages in lines of industry that are already open to them, *e.g.*, basket making, broom making, reseating chairs, repairing mattresses and tuning musical instruments, as well as to aid workmen who have made a beginning to increase their business; (8) to aid blind men and women engaged in home industries, however slight or simple, in improving the character of their wares and in finding purchasers for them; and (9) to disseminate information as to the most efficacious means of preventing blindness in infants and children.

We are aware that the profitable and economical cultivation of our field of endeavor demands a larger body of precise and inti-

mate knowledge of the personal history, physical condition, mental characteristics and industrial capabilities of the blind who seek employment, advice and instruction. We shall put forth our best efforts to acquire and apply such knowledge, to the end that the needs of the most healthy, capable and industrious among the blind may be met, and in order that the funds entrusted to the commission by the State may not be wasted upon those who are below par in respect to capacity or character.

The chief object of the commission is to aid the blind to help themselves, and to convince the public that the blind can help themselves.

Respectfully submitted,

DR. EDWARD M. HARTWELL, *Chairman*,
HELEN KELLER,
ANNETTE P. ROGERS,
DR. J. H. A. MATTE,
JAMES P. MUNROE,

Commission for the Blind.

APPENDIX.

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APPENDIX A.

LEGISLATION ENACTED SINCE 1899, CONCERNING THE BLIND.

I.

Acts of 1899, Chapter 13.

RESOLVE RELATIVE TO THE INSTRUCTION OF THE ADULT BLIND.

Resolved, That the state board of education is hereby directed to inquire into the feasibility of instructing the adult blind at their homes, and to report the result of its investigations, with such recommendations as it may deem proper, to the next general court. [*Approved March 1, 1899.*]

II.

Acts of 1900, Chapter 430.

AN ACT TO PROVIDE FOR THE INSTRUCTION OF THE ADULT BLIND AT THEIR HOMES BY THE PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL FOR THE BLIND.

Be it enacted, etc., as follows:

SECTION 1. There shall be allowed and paid out of the treasury of the commonwealth a sum not exceeding one thousand dollars, to be expended by the Perkins Institution and Massachusetts School for the Blind, for the instruction of the adult blind at their homes; but no expenditures shall be made under this act until the plans for such instruction have received the approval of the state board of education. It shall be the duty of the institution aforesaid to make a report to the state board of education of its doings under this act.

SECTION 2. This act shall take effect upon its passage. [*Approved July 5, 1900.*]

III.

Acts of 1901, Chapter 98.

RESOLVE TO PROVIDE FOR THE INSTRUCTION OF THE ADULT BLIND AT THEIR HOMES BY THE PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL FOR THE BLIND.

Resolved, That there be allowed and paid out of the treasury of the commonwealth a sum not exceeding thirty-six hundred dollars, in addition to the unexpended balance of the appropriation authorized by chapter four hundred and thirty of the acts of the year nineteen hundred,

to be expended by the Perkins Institution and Massachusetts School for the Blind for the instruction of the adult blind at their homes. It shall be the duty of the said institution to make a detailed report to the state board of education of the expenditures under this resolve. [*Approved June 10, 1901.*]

IV.

Acts of 1902, Chapter 297.

AN ACT TO PROVIDE FOR THE INSTRUCTION OF THE ADULT BLIND AT THEIR HOMES BY THE PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL FOR THE BLIND.

Be it enacted, etc., as follows:

There shall annually be allowed and paid out of the treasury of the commonwealth a sum not exceeding five thousand dollars, to be expended by the Perkins Institution and Massachusetts School for the Blind for the instruction of the adult blind at their homes. It shall be the duty of the said institution to make a detailed report each year to the state board of education of the expenditures under this act. [*Approved April 11, 1902.*]

V.

Acts of 1903, Chapter 27.

AN ACT MAKING AN APPROPRIATION FOR THE INSTRUCTION OF THE ADULT BLIND AT THEIR HOMES BY THE PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL FOR THE BLIND.

Be it enacted, etc., as follows:

SECTION 1. The sum of five thousand dollars is hereby appropriated, to be paid out of the treasury of the commonwealth from the ordinary revenue, to provide for the instruction of the adult blind at their homes by the Perkins Institution and Massachusetts School for the Blind, for the year ending on the thirty-first day of December, nineteen hundred and three.

SECTION 2. This act shall take effect upon its passage. [*Approved January 31, 1903.*]

VI.

Acts of 1903, Chapter 74.

RESOLVE TO PROVIDE FOR THE APPOINTMENT OF A COMMISSION TO INVESTIGATE THE CONDITION OF THE ADULT BLIND.

Resolved, That the governor, with the advice of the council, is hereby authorized and requested to appoint a commission consisting of three persons, one of whom he shall designate as chairman, which commission shall investigate the condition of the adult blind within this commonwealth, shall inquire into the means and methods whereby their condition may be ameliorated, shall consider the expediency of the establishment by the commonwealth of an industrial training school or other institution for the adult blind, and may recommend legislation. The commission shall serve without compensation, but may employ such assistance

as may be necessary, and its necessary expenses including travelling expenses, so far as the same are approved by the governor and council, shall be paid from time to time from the treasury of the commonwealth. The commission shall report the result of its investigations to the general court on or before the fifteenth day of January in the year nineteen hundred and four. If the commission shall recommend legislation it shall accompany its report with drafts of such bills as may be necessary to carry its recommendations into effect. [*Approved May 9, 1903.*]

VII.

Acts of 1904, Chapter 20.

AN ACT MAKING AN APPROPRIATION FOR THE INSTRUCTION OF THE ADULT BLIND AT THEIR HOMES BY THE PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL FOR THE BLIND.

Be it enacted, etc., as follows:

SECTION 1. The sum of five thousand dollars is hereby appropriated, to be paid out of the treasury of the commonwealth from the ordinary revenue, to provide for the instruction of the adult blind at their homes by the Perkins Institution and Massachusetts School for the Blind, for the year ending on the thirty-first day of December, nineteen hundred and four.

SECTION 2. This act shall take effect upon its passage. [*Approved January 30, 1904.*]

VIII.

Acts of 1904, Chapter 87.

RESOLVE RELATIVE TO THE ADULT BLIND.

Resolved, That the governor, with the advice of the council, is hereby authorized and requested to appoint a commission consisting of three persons, one of whom he shall designate as chairman, which commission shall prepare a complete register of the adult blind in the commonwealth between the ages of twenty and sixty years, containing a description of their condition, the cause of their blindness, and their capacity for industrial training. Adult blind persons between the ages of twenty and sixty years who desire to receive industrial training in schools for the blind in other states than Massachusetts may, on the recommendation of the commission and with the approval of the governor and council, be sent to such schools, and their expenses while receiving such training may be paid in whole or in part from the treasury of the commonwealth, with the approval of the governor and council. The commission shall also investigate and report as to the advisability and feasibility of ameliorating the condition of the adult blind by industrial training, the establishment of industrial schools, or by any other means. The commission shall serve without compensation, but it may employ such assistance as may be necessary, and its necessary expenses, including travelling expenses, so far as the same are approved by the governor and council, shall be paid from

the treasury of the commonwealth. The commission shall report the result of its investigations to the general court on or before the fifteenth day of January in the year nineteen hundred and five, with such recommendations as it may deem advisable, and shall include in its report the register of the adult blind to be prepared under the provisions of this resolve, a list of the names and ages of all adult blind persons placed in schools for the blind in other states under the authority of this resolve, a statement of the expense to the commonwealth incurred thereby, and, so far as is practicable, of the progress made by every such person in any such school. If the commission shall recommend legislation it shall accompany its report with the drafts of such bills as may be necessary to carry its recommendations into effect. The total expenditures authorized by this resolve shall not exceed the sum of five thousand dollars. *[Approved May 23, 1904.]*

IX.

Acts of 1905, Chapter 26.

AN ACT MAKING AN APPROPRIATION FOR THE INSTRUCTION OF THE ADULT BLIND AT THEIR HOMES BY THE PERKINS INSTITUTION AND MASSACHUSETTS SCHOOL FOR THE BLIND.

Be it enacted, etc., as follows:

SECTION 1. The sum of five thousand dollars is hereby appropriated to be paid out of the treasury of the commonwealth from the ordinary revenue, to provide for the instruction of the adult blind at their homes by the Perkins Institution and Massachusetts School for the Blind, for the year ending on the thirty-first day of December, nineteen hundred and five.

SECTION 2. This act shall take effect upon its passage. *[Approved February 2, 1905.]*

X.

Acts of 1905, Chapter 251.

AN ACT RELATIVE TO CERTAIN DISEASES OF THE EYES OF INFANTS.

Be it enacted, etc., as follows:

SECTION 1. Section forty-nine of chapter seventy-five of the Revised Laws is hereby amended by inserting after the word "contagion," in the ninth line, the words: — Should one or both eyes of an infant become inflamed, swollen and red, and show an unnatural discharge at any time within two weeks after its birth, it shall be the duty of the nurse, relative or other attendant having charge of such infant to report in writing within six hours thereafter, to the board of health of the city or town in which the parents of the infant reside, the fact that such inflammation, swelling and redness of the eyes and unnatural discharge exist. On receipt of such report, or of notice of the same symptoms given by a physician as provided by the following section, the board of health shall take such immediate action as it may deem necessary in order that blindness may be prevented, — so as to read as follows: — *Section 49.* A householder who knows that

a person in his family or house is sick of smallpox, diphtheria, scarlet fever or any other infectious disease dangerous to the public health shall forthwith give notice thereof to the board of health of the city or town in which he dwells. Upon the death, recovery or removal of such person, the householder shall disinfect to the satisfaction of the board such rooms of his house and articles therein, as, in the opinion of the board, have been exposed to infection or contagion. Should one or both eyes of an infant become inflamed, swollen and red, and show an unnatural discharge at any time within two weeks after its birth, it shall be the duty of the nurse, relative or other attendant having charge of such infant to report in writing within six hours thereafter, to the board of health of the city or town in which the parents of the infant reside, the fact that such inflammation, swelling and redness of the eyes and unnatural discharge exist. On receipt of such report, or of notice of the same symptoms given by a physician as provided by the following section, the board of health shall take such immediate action as it may deem necessary in order that blindness may be prevented. Whoever violates the provisions of this section shall be punished by a fine of not more than one hundred dollars.

SECTION 2. Section fifty of chapter seventy-five of the Revised Laws is hereby amended by inserting after the word "health," in the third line, the words: — or if one or both eyes of an infant whom or whose mother he is called to visit become inflamed, swollen and red, and show an unnatural discharge within two weeks after the birth of such infant, — so as to read as follows: — *Section 50.* If a physician knows that a person whom he is called to visit is infected with smallpox, diphtheria, scarlet fever or any other disease dangerous to the public health, or if one or both eyes of an infant whom or whose mother he is called to visit become inflamed, swollen and red, and show an unnatural discharge within two weeks after the birth of such infant, he shall immediately give notice thereof in writing over his own signature to the selectmen or board of health of the town; and if he refuses or neglects to give such notice, he shall forfeit not less than fifty or more than two hundred dollars for each offence. [*Approved March 31, 1905.*]

XI.

Acts of 1905, Chapter 1.

RESOLVE TO EXTEND THE TIME WITHIN WHICH REPORT SHALL BE MADE BY THE COMMISSION APPOINTED TO PREPARE A REGISTER OF THE ADULT BLIND AND TO INVESTIGATE AND REPORT AS TO THEIR INDUSTRIAL TRAINING.

Resolved, That the time within which the commission appointed to prepare a complete register of the adult blind and for other purposes, which was constituted by chapter eighty-seven of the resolves of the year nineteen hundred and four, is required to report to the general court is hereby extended until the fifteenth day of January in the year nineteen hundred and six; and the chief of the bureau of statistics of labor is hereby empow-

ered and instructed to aid the commission in its preparation of a register of the adult blind by furnishing it, upon its request, with the names, addresses and such other facts concerning the adult blind as may be recorded by the enumerators in taking the decennial census in the year nineteen hundred and five. [Approved January 16, 1905.

XII.

Acts of 1906, Chapter 383.

AN ACT RELATIVE TO COMPULSORY EDUCATION.

Be it enacted, etc., as follows:

Section one of chapter forty-four of the Revised Laws, as amended by section one of chapter three hundred and twenty of the acts of the year nineteen hundred and five, is hereby further amended by inserting after the word "dollars," in the thirty-third line, the words: — *provided, however,* that no physical or mental condition which is capable of correction, or which renders the child a fit subject for special instruction at public charge in institutions other than the public day schools, shall avail as a defence under the provisions of this section unless it shall be made to appear that the defendant has employed all reasonable measures for the correction of the condition, or the suitable instruction of the child, — so as to read as follows: — *Section 1.* Every child between seven and fourteen years of age, and every child under sixteen years of age who cannot read at sight and write legibly simple sentences in the English language, shall attend some public day school in the city or town in which he resides during the entire time the public day schools are in session, subject to such exceptions as to children, places of attendance and schools as are provided for in section three of chapter forty-two and sections three, five and six of this chapter. The superintendent of schools or, if there is no superintendent of schools, the school committee, or teachers acting under authority of said superintendent or committee, may excuse cases of necessary absence. The attendance of a child upon a public day school shall not be required if he has attended for a like period of time a private day school approved by the school committee of such city or town in accordance with the provisions of the following section, or if he has been otherwise instructed for a like period of time in the branches of learning required by law to be taught in the public schools, or if he has already acquired such branches of learning, or if his physical or mental condition is such as to render such attendance inexpedient or impracticable. Every person having under his control a child as described in this section shall cause him to attend school as herein required; and if he fails for five day sessions or ten half day sessions within any period of six months while under such control to cause such child, whose physical or mental condition is not such as to render his attendance at school harmful or impracticable, so to attend school, he shall, upon complaint by a truant officer and conviction thereof, be punished by a fine of not more than twenty dollars: *provided, however,* that no physical or mental condition which is capable

of correction, or which renders the child a fit subject for special instruction at public charge in institutions other than the public day schools, shall avail as a defence under the provisions of this section unless it shall be made to appear that the defendant has employed all reasonable measures for the correction of the condition, or the suitable instruction of the child. Whoever induces or attempts to induce a child to absent himself unlawfully from school, or employs or harbors a child who, while school is in session, is absent unlawfully from school shall be punished by a fine of not more than fifty dollars. [Approved May 11, 1906.]

XIII.

Acts of 1906, Chapter 385.

AN ACT TO ESTABLISH THE MASSACHUSETTS COMMISSION FOR THE BLIND.

Be it enacted, etc., as follows:

SECTION 1. There shall be a state board, to be known as the Massachusetts Commission for the Blind, consisting of five persons, to be appointed by the governor, with the advice and consent of the council, within sixty days after the passage of this act, one member of which shall be appointed for a term of five years, one for a term of four years, one for a term of three years, one for a term of two years and one for a term of one year. At the expiration of the term of any member of the commission, a member for the term of five years shall be appointed. Any member of the commission may be removed by the governor, with the consent of the council for such cause as he shall deem sufficient and shall assign in the order of removal.

SECTION 2. The commission shall be authorized to prepare and maintain a register of the blind in Massachusetts, which shall describe their condition, cause of blindness and capacity for education and industrial training. The chief of the bureau of statistics of labor is hereby directed to aid the commission by furnishing it from time to time, upon its request, with the names, addresses and such other facts concerning the blind as may be recorded by the enumerators in taking any decennial census.

SECTION 3. The commission shall act as a bureau of information and industrial aid, the object of which shall be to aid the blind in finding employment and to develop home industries for them. For this purpose the commission may furnish materials and tools to any blind person, and may assist such blind persons as are engaged in home industries in marketing their products.

SECTION 4. The commission may, with the approval of the governor and council, establish, equip and maintain one or more schools for industrial training, and workshops for the employment of blind persons, may pay to employees suitable wages, and may devise means for the sale and distribution of the products of such schools and workshops.

SECTION 5. The commission may receive in the schools established by it pupils from other states, upon the payment of such fees as the commission shall determine, and may at its discretion contribute to the sup-

port of pupils from Massachusetts receiving instruction in institutions outside the commonwealth.

SECTION 6. The commission, in furtherance of the purposes of this act, may provide or pay for temporary lodgings and temporary support for workmen or pupils received at any industrial school or workshop established by it, and may ameliorate the condition of the blind by devising means to facilitate the circulation of books, by promoting visits among the aged or helpless blind in their homes, and by such other methods as it may deem expedient: *provided*, that the commission shall not undertake the permanent support or maintenance of any blind person.

SECTION 7. The commission, with the approval of the governor and council, may appoint such officers and agents as may be necessary, and fix their compensation within the limits of the annual appropriation; but no person employed by the board shall be a member thereof. It shall make its own by-laws, and shall annually, on or before the third Wednesday in January, make a report to the governor and council of its doings up to and including the thirtieth day of November preceding, embodying therein a properly classified and tabulated statement of its estimates for the year ensuing, with its opinion as to the necessity or expediency of appropriations in accordance with such estimates. The annual report shall also present a concise review of the work of the commission for the preceding year, with such suggestions and recommendations as to improving the condition of the blind as it may deem expedient. The members of the board shall receive no compensation for their services, but their travelling and other expenses necessary for the proper performance of their duties shall be allowed and paid out of the treasury of the commonwealth.

SECTION 8. There may be expended during the present year a sum not exceeding twenty thousand dollars in carrying out the provisions of this act.

SECTION 9. This act shall take effect upon its passage. [*Approved May 11, 1906.*]

XIV.

Acts of 1907, Chapter 173.

AN ACT RELATIVE TO THE MASSACHUSETTS COMMISSION FOR THE BLIND.

Be it enacted, etc., as follows:

SECTION 1. Chapter three hundred and eighty-five of the acts of the year nineteen hundred and six is hereby amended by adding after section eight the following new sections: — *Section 9.* There may be advanced to the chairman of said commission out of the treasury of the commonwealth annually, from the amount appropriated for the maintenance of its industries, such sum as may be necessary, not exceeding five thousand dollars at any one time, to be used as a working capital for said industries. Said sum when drawn from the treasury of the commonwealth shall be deposited in a national bank or trust company to the credit of the chairman of the commission as such, who shall give a bond in such sum and with such sureties as the governor and council may approve. *Section 10.*

The commission shall keep separate books of account for its industries, and may use all moneys received from the sale of any products made at its workshops or from the sale of products made under its supervision to which it has title, for the purpose of carrying on its said industries. The auditor of accounts shall at least once in each year, and oftener if he deems it advisable, examine the books, accounts and vouchers of the commission.

SECTION 2. This act shall take effect upon its passage. [*Approved March 6, 1907.*]

XV.

Acts of 1907, Chapter 174.

AN ACT MAKING APPROPRIATIONS FOR THE MASSACHUSETTS COMMISSION
FOR THE BLIND.

Be it enacted, etc., as follows:

SECTION 1. The sums hereinafter mentioned are appropriated, to be paid out of the treasury of the commonwealth from the ordinary revenue, for the salaries and expenses of the Massachusetts commission for the blind, for the fiscal year ending on the thirtieth day of November, nineteen hundred and seven, to wit:—

For the maintenance of industries under the control of said commission, a sum not exceeding fifteen thousand dollars.

For general administration, for information, industrial and educational aid, and such other expenses as may be found necessary by the commission to carry out the provisions of the act establishing the commission, a sum not exceeding twenty-five thousand dollars.

SECTION 2. This act shall take effect upon its passage. [*Approved March 6, 1907.*]

APPENDIX B.

FORMS.
XVI.

Commonwealth of Massachusetts.
REGISTER OF THE BLIND.

NAME				Age Group	Blindness Degree	Case No.
Color	Conjugal Condition			Name of Spouse		
Year of Birth	Birthplace			How long in U. S.	How long in Mass.	
LIVES Date	With			Address	City or Town	
REFERENCES Nearest Relatives Last Employer Physician Church						
Eye and Ear In- firmary	Service of			Vol.	Page	Date
HEALTH Good Fair Infirm				Remarks		
BLINDNESS Right Eye Left Eye	Partial	Total	Congenital	Result of Disease, viz.	Result of Accident, viz.	Age at Occurrence
EDUCATION Before Blindness { Common High Special Since Blindness { School for the Blind Other Training					Special Study or Trade	When
TYPES Am. Braille Eng. Braille N. Y. Point	Where Taught		When	Moon Boston Line Br. or Pt. Music	Where Taught	When
SUPPORT Occupation { Before Blindness Since Blindness	Wholly	Partly	Average Weekly Earnings	Employed last 12 months	Years Employed	
Family Income Pension			RELIEF Public Inst. Outdoor Relief Private Inst. Private Societies	Name	Date	

Referred by	Name	Address	Date
Investigated by			

XVII.

NOTES FOR SPECIAL INQUIRY CONCERNING BLIND PERSONS OF SCHOOL AGE.

I. Additional Points of Inquiry.

1. Blindness: —

Degree, *i.e.*, whether the person is —

(1) Totally blind, or sees light only.

(2) Has sufficient sight to avoid running into objects, sees shadows, etc.

(3) Able to distinguish color and could see to play cards, but cannot see to read.

(4) Can see to read, but cannot use sight long enough for that purpose, *i.e.*, defective sight not helpable by glasses.

Any other cases of blindness in family?

Relationship?

Chances of improvement in sight?

2. Mental condition: —

Good, fair or defective?

Note: —

(1) Walk and gait.

At what age did child learn to walk?

(2) Ability to use hands.

(3) Speech.

At what age did he learn to talk?

(4) Personal habits.

(5) Power of voluntary attention.

(6) Ability to show interest connectedly.

(7) Can he be taught?

Attending physician.

3. Physical condition: —

General appearance.

Any physical defects, as hearing, throat and nose, skin, digestion and nerves? Congenital or not? Age at occurrence? Physician?

4. Character and disposition: —

How does the child spend a day?

5. Family (first name, age, nationality, occupation, earnings, health, habits): —

Father.

Mother.

Brothers.

Sisters.

Number of brothers and sisters who have died?

Of what diseases?

Consanguinity of parents?

Circumstances at time of child's birth?

Church.

6. Schooling: —

SCHOOL.	Teacher.	City or Town.	Length of Attendance.	Grade reached.

Before blindness.

Since blindness.

If none, why?

Investigated by: —

Date: —

**"CAMBRIDGE" RUGS. - Hand-woven Rugs made by Blind Men at the Workshops of the
Massachusetts Commission for the Blind, Cambridge, Mass**

SECOND ANNUAL REPORT

OF THE

MASSACHUSETTS

COMMISSION FOR THE BLIND.

FOR THE YEAR ENDING NOV. 30, 1908.

BOSTON:
WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
18 POST OFFICE SQUARE.
1909.

APPROVED BY
THE STATE BOARD OF PUBLICATION

COMMISSION FOR THE BLIND.

JAMES P. MUNROE of Lexington, <i>Chairman</i> ,	.	.	Term ends 1912.
Miss ANNETTE P. ROGERS of Boston,	.	.	Term ends 1909.
J. H. A. MATTE of North Adams,	.	.	Term ends 1913.
Mrs. JOHN T. PRINCE of West Newton,	.	.	Term ends 1910.
WALTER B. SNOW of Watertown, <i>Secretary</i> ,	.	.	Term ends 1911.

DEPARTMENT OF REGISTRATION AND INFORMATION.

LUCY WRIGHT,	.	.	.	.	.	Superintendent.
LOTTA S. RAND,	.	.	.	.	.	Deputy Superintendent.

INDUSTRIAL DEPARTMENT.

CHARLES F. F. CAMPBELL,	.	.	.	.	Superintendent.
CHARLES W. HOLMES,	.	.	.	.	Deputy Superintendent.
LENA E. MENDELSON,	.	.	.	.	Deputy Superintendent.
GEORGE S. MANSFIELD,	.	.	.	.	Distributing Agent.

The Commonwealth of Massachusetts.

REPORT.

His Excellency the Governor, and the Honorable the Members of the Council.

GENTLEMEN :— The Massachusetts Commission for the Blind beg leave to submit the following report, covering the period between Dec. 1, 1907, and the end of the last fiscal year, Nov. 30, 1908.

The appointing of the commission, under chapter 385 of the Acts of 1906, was the outcome of an agitation, begun nearly ten years earlier, for greater attention on the part of the Commonwealth to the needs of the adult blind. A valuable report by the late Frank A. Hill, at that time secretary of the State Board of Education, on the "Feasibility of instructing the Adult Blind at their Homes," was followed by legislation authorizing the instruction, under the direction of the Perkins Institution and Massachusetts School for the Blind, of adults in their homes, and making appropriations therefor.

In 1902 was formed the "Massachusetts Association for promoting the Interests of the Adult Blind," which was instrumental in leading the Legislature to appoint a commission to investigate the condition of the adult blind. That commission, consisting of Dr. E. M. Hartwell, Mr. A. H. Hardy and Miss Agnes Irwin, made a report to the General Court, on Jan. 15, 1904, and a second report on Jan. 15, 1906. These reports took effect in the legislation already referred to, authorizing the Governor, with the advice and consent of the Council, to appoint five persons "to prepare and maintain a register of the blind in Massachusetts . . . to act as a bureau of information and industrial aid . . . to establish, equip, and maintain one or more schools for industrial training, and workshops for the employment of blind persons . . . to devise means for the sale and distribution of the products of such schools and workshops . . . to ameliorate the condition of

the blind by devising means to facilitate the circulation of books, by promoting visits among the aged or helpless blind in their homes, and by such other methods as it may deem expedient: *provided*, that the commission shall not undertake the permanent support or maintenance of any blind person. . . . The members of the board shall receive no compensation for their services."

This act also appropriated \$20,000 for the carrying out of the above provisions for the remaining months of that fiscal year. For the year 1906-07 was appropriated \$40,000, of which \$15,000 was by a special act allowed as working capital for the industries. A like sum was appropriated by the General Court of 1908.

PERSONNEL.

The original commission, as appointed by His Excellency Governor Guild, and approved by his Council in July, 1906, consisted of Dr. Edward M. Hartwell of Boston (subsequently elected chairman of the Board), Miss Helen Keller of Wrentham, Miss Annette P. Rogers of Boston, Dr. J. H. A. Matte of North Adams and Robert L. Raymond, Esq., of Milton (subsequently elected secretary). On the expiration of Mr. Raymond's term, in July, 1907, and upon his declining to serve again, Mr. James P. Munroe of Lexington was appointed in his place. During 1908 the commission suffered a further loss through the resignations of Miss Keller and Dr. Hartwell, both of whom found it impossible, consistently with their other duties, to carry the burdens incident to service upon the commission. The vacancies thus created were filled by the appointment, in February, 1908, of Mrs. John T. Prince of Newton, and, in November, 1908, of Mr. Walter B. Snow of Watertown. As now organized, Mr. Munroe serves as chairman and Mr. Snow as secretary of the commission.

LOCATION.

The headquarters of the commission are established at rooms 308, 309 and 310 of the Ford Building, 15 Ashburton Place. There are held the semimonthly meetings of the commission, and there are to be found the superintendent and deputy superintendent of registration and information, the deputy superintendents of the industrial department, and other workers. In addition, the commission have established workshops for men, occupying two floors of a brick building, 686 Massachusetts Avenue, Cambridge; a

workshop for women, at 277 Harvard Street, Cambridge, at which place are the headquarters of the superintendent of the industrial department; a salesroom for articles made by the blind, at 383 Boylston Street, Boston; a shop for employment and instruction, at 24 Dunham Street, Pittsfield; a workshop for men, at 98 Central Street, Lowell, and another workshop for men, at 194 Front Street, Worcester. The aims of these several shops and the results thus far accomplished will be considered later.

DEPARTMENT OF REGISTRATION AND INFORMATION.

In the first annual report of the commission the preliminary work of ascertaining the number and status of blind persons in Massachusetts was explained at length. As a result of this investigation, there were found recorded on Dec. 1, 1907, the names of 3,907 blind citizens of the Commonwealth, in regard to the great majority of whom the commission possessed accurate and recent information. During the period Dec. 1, 1907, to Nov. 30, 1908, additions to and corrections of this list have been made, as follows: —

Names recorded up to Dec. 1, 1907,	3,907
New names added, Dec. 1, 1907, to Nov. 30, 1908,	246
	<hr/>
	4,153
Removed,	21
Died,	19
	<hr/>
	40
	<hr/>
Total,	4,113

The securing of this information was of course fundamental to the work of the commission, and the carefully classified records are of daily use and value not only to ourselves but also to other workers for the blind. In obtaining additions and corrections the commission have been greatly helped by the hearty co-operation both of the blind themselves and of various State, municipal and private boards, especially the Massachusetts Charitable Eye and Ear Infirmary, the officers of which send to our superintendent of registration immediate notice of all cases of blindness coming to their attention.¹

¹ For further report of the work of the department of registration and information, see Appendix A. In this connection the friends of the blind are urged to send information to the office of the commission of all deaths, removals from the State or recoveries of sight, so that the register of the blind may be kept fully up to date.

It is the desire of the commission to reach every blind person who may be helped by us, and who cares for such assistance, at the time when aid, given either directly through the resources placed at our command, or indirectly by putting him in touch with other agencies for advice and help, may be of most value to him. Moreover, we are anxious to be kept informed of those blind workers who have so well succeeded through their own efforts as to need no help from the commission, but whose example cannot fail to be very stimulating to others. To a number of such successful blind men and women we are under obligation for most valuable and valued service during the past year. As regards the young, we are fortunate in having the co-operation of the State Board of Education, which has agreed to make special inquiry concerning blind and partially blind children in the taking of the annual school census.

DISPOSITION OF CASES.

Having secured definite information regarding an applicant for aid or counsel, it is obvious that there are many directions in which the commission may proceed in their endeavor to perform the duties with which they are charged. In the case of a child, they may ask the co-operation of the medical authorities, in the hope that medical or surgical aid may be of value; of the school authorities, if the child is being denied an education; of the various philanthropic associations, if there appears need of financial assistance or wise guardianship; of the Perkins Institution for the Blind, if the child seems a suitable candidate for that school; of the trustees of the School for the Feeble-minded, if there be mental as well as visual defect; or of local individuals or organizations, if it be merely a question of friendly interest in the child and its family. In the case of an adult, the commission must decide whether or not it is one for the attention of local or State charitable organizations, and they may suggest medical or surgical alleviation. There is a much larger question, however, in all such cases, than that of mere relief or support, — the question of giving the blind person occupation, and of making him, if possible, partly or wholly self-supporting. Enforced idleness is the greatest curse of blindness, and one of the chief duties of the commission, as they understand their obligations, is that of furnishing, directly or indirectly, such training to those who desire it as may enable the blind adult at least to keep himself occupied, and at best to earn a comfortable living.

Summary Outline of Commission's Work, Dec. 1, 1907, to Nov. 30, 1908, showing that the Commission has been in Touch with 676 Blind Persons this Year, of whom 392 have been helped in 767 Ways.

	Number in Groups.	Indi- viduals not counted Elsewhere.
1. Results: —		
(1) Training given or expenses provided during training.	77 ¹	64
(2) Regular employment given or secured, . . .	80 ¹	46
(3) Temporary work given or secured, . . .	18 ¹	7
(4) Home industry fostered (loans, equipment, solicitor, etc.).	91	29
(5) Employment and training given through sales-room.	100	79
(6) Information and advice (occupation, boarding places for workers, etc.).	49	31
(7) Reported to other { for blind,	115	55
agencies, { general agencies,	84	24
(8) Recreations, symphony tickets, vacations (given by others through us).	153	57
	767	392
2. Pending for various reasons (work, supervision, etc.),	132	117
3. No results: —		
Because died, removed, incapacitated, etc.,	167	167
Total,		676

¹ These figures cover sub-groups in which some individuals appear twice. For details of (1), see table on p. 30; of (2), see table on p. 32; of (3), see table on p. 33; of (4), see table on p. 34.

HOME WORK.

The commission, having taken over in the summer of 1907 the home industries for women, formerly maintained by the alumnae of the Perkins Institution for the Blind, are making every effort to promote the sale, through their rooms on Boylston Street, of all such articles as may be made by the blind in their homes. The training of these home workers is largely done by the home teachers (maintained, under the supervision of the Perkins Institution for the Blind, by legislative appropriation), upon whose friendly co-

operation we depend. We have referred to them 41 pupils in the course of the year, and they in turn have reported to us 18 persons wishing for our attention. In addition, the commission employs when necessary, for supervision of special orders for knitting or sewing and for the teaching of new patterns, a special teacher, who goes to the blind workers in their homes.¹

BROADER INDUSTRIES.

Since, however, the field for such household industries must always be limited, the commission from the first have sought larger opportunities for the adult blind, and they have done this mainly in four directions: (1) by finding openings for persons without sight to work in company and on substantially equal terms with the seeing; (2) by training the blind for industries which they may carry on, singly or in groups, in shops maintained by themselves; (3) by establishing workshops wherein the blind, under seeing supervision, may produce in large quantities articles which find a ready sale in the open market, not because they are made by the blind, but because they are intrinsically excellent; and (4) by making loans of tools, material or other substantial assets to blind men, through which to establish themselves or to tide over some peculiarly difficult situation in their efforts to be self-supporting.

Opportunities to work with the Seeing.

The task of finding openings to work in association with the seeing is always difficult, because of the belief of most employers that blind persons cannot work as well as those with sight, and because of the not unnatural fear that, because of lack of sight, the workers may receive injury for which the employer will be held accountable. The endeavor to secure such opportunities, has, moreover, been peculiarly unfruitful during the past year because of the fact that most employers have been reducing rather than increasing their working force. Nevertheless, at the present time there are blind men who, through efforts of our industrial department, are working side by side with the seeing, in five different lines of industry.

¹ For a summary of the work of the department of home work, see Appendix A.

WEAVING OF THE "CAMBRIDGE" RUG.

Training Classes.

In developing the second plan, that of educating blind men for occupations which they may ultimately carry on by themselves, the commission have established in Cambridge and in Pittsfield classes in cobbling, broom making, chair seating (cane, pith and rush), mattress making and joinery; and already graduates of these classes are carrying on these trades in their own homes, with good results. In the belief, however, that greater success will come when a small group of such men, known to their locality, work together, the commission have established in Lowell and in Worcester small shops, supervised in both cases by blind men, and helped by the commission only to the extent of rental, general oversight of accounts, and such stimulus as the Board may give through the employment of solicitors or the enlisting of individual helpers. As opportunities and means allow, it is the plan of the commission to establish other local centers where needed, and to endeavor to awaken to the fullest degree local interest in, and patronage of, the efforts of blind men and women native to such city or town.¹

The Cambridge Workshops.

The largest single undertaking of the commission is in carrying out the third means of making the adult blind self-supporting. This is through the establishing of workshops, wherein the blind are regularly employed in the making of standard articles, which the commission undertake to market directly through their own salesrooms, and indirectly through large jobbing or retail houses. The industries thus maintained are: (1) a shop for weaving the "Cambridge" rugs and tapestries, which gives regular employment to 9 blind men as weavers, and to 2 blind women as finishers; (2) a shop for the manufacture of the "Wundermop" (invented by a blind man, to whom the commission pay a royalty), which employs 4 blind men and 1 blind woman; (3) a shop for the weaving of art fabrics, which gives employment to 12 women, all without sight; and (4) a shop for the making of factory and track brooms (the latter being the invention of the blind man who invented the "Wundermop"), which employs three blind men.²

¹ See the special report of the deputy superintendent of industries, Appendix C.

² For details of this work, see the report of the superintendent of the industrial department, Appendix B.

The products of these shops are maintained at the highest standard of quality, and are sold wholly upon their merits. One of the chief activities of the commission has been in endeavoring to educate the public to understand that the blind can produce articles of superior workmanship; and their aim is so to extend the market for these goods that they may eventually give employment, without marked increase over the present cost of supervision, to a much larger number of blind men and women. They are greatly encouraged by the fact that, notwithstanding the severe industrial depression, the sales of these products have increased during 1908 from \$12,150 to \$16,870; that leading firms in Boston, New York, Chicago, Philadelphia, Albany, Springfield, etc., are large buyers of the rugs; that the school department of the city of New York has specified the "Wundermop" in its annual contract for supplies; and that some of the leading railroads of the country are buyers of these mops. For the extension of their market the commission are greatly indebted to the untiring efforts of Mr. George S. Mansfield of Malden, who has undertaken this difficult work in the most generous and unselfish spirit.

Loans.

In the matter of loans the commission have during 1908 given assistance as follows:—

1. Equipment:—

(1) Tools, etc., for trade:—

a. Loans continued from 1906 to 1907,	8
b. Loans granted in 1907-08,	7

(2) Braille writers, typewriters, etc.:—

a. Loans continued from 1906 to 1907,	3
b. Loans granted in 1907-08,	8

(3) Poultry-raising outfits, etc., continued from 1906 to 1907, 3

2. Materials for trade, stock, etc., for store, 11

3. Printing, rent, transportation, etc., connected with business undertakings, 7

Continued from 1906 to 1907, 14

Granted in 1907-08, 33

— 47

Of all such loans the commission secures proper legal acknowledgment, and in the case of tangible property the ownership

remains with the commission until the loan is repaid. It is our belief that much good may be done to deserving persons by thus furnishing temporarily those facilities for carrying on work which are so difficult for a handicapped man to secure. Further, by purchasing material and selling it at wholesale prices, though in small quantities, to workers who otherwise must buy at retail figures, the commission feel that they are rendering a legitimate service.

SALESROOM.

In December, 1906, the commission established a salesroom at 383 Boylston Street, in order to have a central and conspicuous location at which to exhibit and sell the wide variety of articles made by the blind.¹ The choice of location was fortunate, because the spirit of the officials of the Perkins Institution for the Blind, in whose building the salesroom is located, has been most friendly and helpful. They not only have been very considerate landlords, but they have put a part of their own salesroom, window space and the activities of their sales agents at our disposal, especially at the Christmas season, to assist in the selling of our goods.

Another outlet for the shop and home products of the blind was furnished through the salesroom maintained for eleven weeks in the summer of 1908 upon the village green at Manchester, Mass. The picturesque building for this shop was provided through the generosity of Mrs. William Hooper and other interested friends in Manchester, and not only were products to the value of nearly one thousand dollars sold there, but employment also was given to two blind girls. It is hoped that this and other kindred means of disposing of the work of the blind may be continued and developed during the summer of 1909.

MINOR ACTIVITIES.

In addition to the main lines of effort indicated above, the commission have endeavored to carry out in sundry minor ways the general duties with which they are charged by the Commonwealth.

They have co-operated with others in calling attention to the causes and prevention of a large proportion of infantile blindness;

¹ For a list of these articles see p. 24.

have furnished, through their agents, information and advice of many kinds to persons in and out of Massachusetts who are interested in work for the blind; have in the same way given counsel many times daily, directly or by letter, to blind persons seeking assistance and advice of every sort; have prepared and distributed pertinent literature; with the active co-operation of the Massachusetts Association for promoting the Interests of the Adult Blind, have enabled blind persons to enjoy outings of one sort and another; and have assisted in the discreet giving of financial aid furnished through that association or through private agencies. Through private contributions from friends, who realize that music is the highest form of æsthetic pleasure open to the blind, they have also been able to assist in the distribution of tickets to the concerts of the Boston Symphony Orchestra.

In addition to these activities, which, while not specifically in their regular line of duty, are without question of great value to the blind, the commission have given direct help to the magazine known as the "Outlook for the Blind," by making such arrangements that the superintendent of the industrial department is able to act as editor. This quarterly journal is doing much to co-ordinate and improve work for the blind throughout the country.

Moreover, at the urgent request of the Chelsea Relief Association, the commission gave up the services of the superintendent of registration and information for one month in the early summer, in order that she might help towards the reorganization of charity work in that stricken city. To keep in touch with what is being done throughout the world, Mr. Campbell and Miss Wright were authorized to go to the meeting of the International Association of Workers for the Blind, held in Manchester, Eng., in August last, the commission accrediting them as its representatives, but not assuming any financial responsibility. Many valuable ideas that will be of immediate benefit were brought back by these superintendents.

EXHIBITIONS.

The commission sent to the above conference samples of their work, which were displayed at the exhibition held in connection therewith. It is gratifying to report that the commission's exhibit received three first prizes and one second.

The Boston Society of Arts and Crafts, for its "travelling ex-

ART FABRIC WEAVING. — The blind weaver depresses certain pedals which lift the warp threads in characteristic groups. The weaver, having memorized these, can readily distinguish them by touch. The patterns are described to her by a seeing supervisor. When they are too difficult to be readily memorized the blind girl writes out the description in raised characters, thus securing notes for reference and guidance. To "work in" the design, skeins of colored thread, assorted by the designer, are given to the blind weaver, who arranges them in numerical order within easy reach. Knowing the number of her skein, she selects "pattern threads" of a desired color and ties them (as in the photograph) around such groups of raised threads as the design prescribes. After "tying in" each row of colored "pattern threads" the weaver throws her shuttle with the wool thread to make the body of the cloth.

hibit" drew almost exclusively from the commission's art fabric shop for its section in hand weaving. The fact that the things were made by the blind was not taken into consideration, — the fabrics were selected solely upon their merits, as illustrations of the best of their kind in this country.

At the Massachusetts Conference of Charities, held at Fall River, an exhibit illustrating all the activities for the blind in Massachusetts was arranged.

WELFARE WORK.

More than half of the workers in the Cambridge shops live in their own homes. Those who do not reside within walking distance make use of the electrics, some with and some without guides. There is no boarding house connected with either of our shops, and each of the workers without a home is encouraged to live in the neighborhood wherever he or she will be most comfortable. Some of our young women have been very happy at the boarding house of the Cambridge Y. W. C. A., while others have found lodging places at the homes of their associate workers. The men find little difficulty in securing board near the shops. One or two, with their families, have moved to within walking distance of their work, and some of the other men board with them. For the apprentices board and lodging are found, unless they prefer to select their own places.

During the summer months the workers made free use of the garden connected with the women's shop, where frequent voluntary readings from the current magazines and newspapers were given. During the winter the readings take place in a room provided by the commission. At Thanksgiving and Christmas the Fruit and Flower Mission sends to each worker a basket which is greatly appreciated.

SUMMARY OF DISBURSEMENTS FOR 1907-08.¹*General Expenses.*

Administration department: —

Maintenance of general offices, salaries of superintendents (including two blind persons), travelling expenses, exhibits and office furnishings, . . .	\$10,902 84
Register, supplies, etc.,	52 95

Industrial and educational aid and maintenance of training classes: —

a. Board and lodging of apprentices, stock and tools furnished, special wages, guiding, etc.,	\$4,115 90
b. Toward maintenance of salesroom, etc.,	993 08
c. Equipment purchased and distributed for training at home,	168 80
d. Cobbling class,	1,319 77
e. Broom shop and training class,	476 31
f. Home work for women, cost of training and distribution of products,	3,076 59
g. Pittsfield workshop and training school,	2,993 98
h. Lowell workshop, equipment and maintenance for six months,	549 81
i. Worcester workshop, equipment and maintenance for three months,	323 32
j. Chair caning at Cambridge, maintenance,	26 65
	<hr/> 14,044 21
	<hr/> \$25,000 00
Toward maintenance of industries (of which full report is given in Appendix D),	15,000 00
	<hr/> \$40,000 00

NOTE. — As will be seen by the above figures, the commission spent nearly 75 per cent. of its total appropriation on account of shops and training classes, and as a result was able to add to its working capital for the year an income of \$20,361.78 from sales of stock and articles received from the blind on consignment. The use of this amount, together with the appropriation, enabled the commission to pay out, in the form of direct earnings to the blind, \$13,769.98, and industrial and educational aid (not earnings) \$11,077.46, making a total amount of \$24,847.44, which went to the immediate benefit of the blind.

¹ For a complete financial statement, see Appendix D.

IMMEDIATE PROBLEMS.

That activity of the department of registration and information which most loudly calls for development is work in the field. As the general inquiry progresses, there develops more and more need for close investigation on the spot of each case of blindness, so that the problem of that particular person may be worked out, not only with a view to his immediate needs, but also with regard to his future welfare. Systematic field work, moreover, would lead to a far better understanding of the whole problem of blindness, especially as it concerns young children and their relation to public education. There are undoubtedly many now in the public schools whose partial blindness or tendency towards blindness might be overcome or arrested did the teachers understand the situation, and could the child receive both proper medical aid and the special individual training which his physical defect demands. Such field work, furthermore, might build up in important centers of the State a local interest in the problem of the blind that could easily be crystallized into standing committees of citizens to act as informal agents of the commission, and to carry out day by day that work of supervision and of solicitation which is so necessary in connection with the industrial efforts of the blind. Especially could such field workers, in co-operation with local committees, so far guide the home work of blind women as greatly to improve its quality and therefore its market value. It is the intention of the commission to develop to the highest degree consistent with its resources this field work and this plan of local committees.

One of the serious handicaps under which the industries of the Cambridge shops labor is that of a meagre working capital. That steady employment may be given to blind workers, and that the largest number of blind persons may be employed with the least amount of seeing supervision, it is essential to produce goods in steady volume without much regard to the fluctuations of the seasons. To do this, however, involves not only large expenditures for stock, but also the accumulation, at certain times, of considerable quantities of finished goods. This, of course, demands capital. Debarred from borrowing, the commission has no resources beyond the \$15,000 generously granted each year by the General Court for the maintenance of industries. This sum, however, notwithstanding the strictest economy, has proved so

far insufficient as to compel us, during both 1907 and 1908, to close the shops for several weeks because of lack of money with which to purchase materials for manufacturing. To avoid this, and in the belief that during 1909 we are almost certain greatly to extend the field of our operations, we have asked the present Legislature to increase this annual grant for industries to \$20,000.

Another serious problem in the maintenance of industries arises from the fact that the commission are dealing in many cases with men and women not only blind, but handicapped in other ways. Sometimes this handicap is due to mental deficiency, which would make it difficult for the worker to earn a living even if possessed of sight; sometimes it originates in that discouragement and bewilderment which overwhelms a person seized with blindness in middle life; sometimes it is owing to a native incapacity for any and all types of activity within the power of the commission to offer; and in many instances the handicap comes from a combination of these and other kindred difficulties. The general policy has been to give preference to those men and women who seem most likely to be able to make a living in the shops. But it is difficult to refuse opportunity to any deserving blind person, and this difficulty is made all the greater through the fact that the commission have not yet reached the point where they are able so to diversify their industries as to provide some kind of work for any willing and fairly normal blind person who may seek employment. As the industries broaden out, and as experimentation opens new avenues of possible activity, more and more of these difficult cases can be provided for; but there must always remain a group of blind persons so greatly incapacitated as to make them merely subjects for public or private charity. Whether or not these persons should be taken care of by existing agencies, or should be established in special homes, as has been done in many States, is a question for careful study.

The commission feel that, in the two and one half years since the board was created, a distinct advance has been made towards the solution of the problem of the blind population of the State. But their experience more and more confirms them in the opinion that a task so difficult as this, and into which enter so many elements, can be dealt with comprehensively only after years of careful study and experimentation. This work of investigation

they understand it to be their duty to carry on, enlisting therein the help of all like agencies in Massachusetts and in other States and countries, and calling upon the citizens, so far as they may, to act with them in making provision for these unfortunate persons whose greatest misfortune, however, is that of enforced idleness and unnecessary dependence.

The commission find it impossible to name all those to whom they stand in debt for assistance of every sort, so long would the list be. But they desire to express special appreciation of the support of the Governor and Council, of the Auditor and of other State officials, and of the ready generosity of the members of the Legislature in providing the funds essential to carrying on their work; and they hope each year more fully to justify this support by the results which they are able to achieve. The outlook for advance during 1909 seems to them very fortunate; and they hope to report at the end of the next fiscal year substantial gains along all those lines which have been so inadequately indicated in the pages of this report.

Respectfully submitted,

JAMES P. MUNROE,
ANNETTE P. ROGERS,
J. H. A. MATTE, M.D.,
LUCINDA W. PRINCE,
WALTER B. SNOW,

Commission for the Blind.

Nov. 30, 1908.

APPENDIX A.

DEPARTMENT OF REGISTRATION AND INFORMATION.

The work of the department of registration and information consists, briefly, of central office work, field work, and supervision of employment of women outside the shops.

I. Central Office.

The work of the central office which falls to the share of the department of registration and information is : keeping up the register of needs of the blind and of work accomplished through the year; co-operating with other agencies for the benefit of blind individuals or groups of individuals; distributing printed information, etc.

Registration. — The various accompanying tables of this report show in outline the record kept and analysis made of the year's work.

Co-operation. — The extent to which co-operation with other agencies for the blind and with general agencies has been effective this past year is suggested by the following table: —

Table showing 236 Persons benefited in 352 Ways by Co-operation with Other Agencies.

REPORTED BY US TO OTHER AGENCIES.	Number in Groups.	Individuals not counted Elsewhere.
1. For the blind: —		
Boston Nursery for Blind Babies,	4	4
Friendly fund (made up by various societies and private individuals),	13	13
Massachusetts Association for promoting the Interests of the Blind,	43	2
Perkins Institute and Massachusetts School for the Blind,	14	14
State home teachers,	41	39
	—115	— 72

REPORTED BY US TO OTHER AGENCIES.	Number in Groups	Individuals not counted Elsewhere.
2. General agencies: social, charitable, educational and relief: —		
Associated charities of Boston (15); Cambridge, Fitchburg and Taunton (3 each); Lynn and Worcester (2 each); Dedham, Fall River, Malden, Newton and Salem (1 each),	33	29
Boston Provident Association,	1	1
Children's societies: Boston Children's Aid Society (1), Massachusetts Infant Asylum (1), Massachusetts Society for Prevention of Cruelty to Children (2),	4	1
City Missionary, Lawrence and Newburyport (1 each),	2	2
Curry School of Expression,	2	1
Denison House,	1	1
Home for Aged Colored Women,	2	2
Legal Aid Society,	1	1
Massachusetts Charitable Eye and Ear Infirmary,	4	1
Massachusetts General Hospital,	1	1
Massachusetts School for the Feeble-minded,	3	2
Milton Convalescent Home,	4	1
Overseers of the poor of Dedham, Gardner, Lowell, Marlborough, Pittsfield and Worcester (1 each),	6	4
Trinity Dispensary,	1	—
Union Relief Associations of Sheffield and Springfield (1 each),	2	2
Vincent Memorial Hospital,	1	—
Women's Educational and Industrial Union, employment agency,	2	1
Private individuals, physicians and lawyers,	14	5
	— 84	
3. Agencies for recreations, etc.: —		
Flower Mission (holiday baskets, etc.),	59	44
Symphony and other concerts, through private individuals,	76	62
Vacations and outings through Country Week, Friendly Fund, Lend-a-Hand Society and Sharon Vacation House,	18	3
	—153	
Totals,	352	236

In addition, it should be said that we are indebted for continued co-operation to committees on the blind of the Women's Club of New Bedford, the Middlesex Club of Lowell, the Twentieth Century Club of Worcester, and to many private individuals, both blind and seeing, who have given us substantial help and advice through the year, and kept us in touch with the blind of the State to an extent impossible without volunteer help.

Information. — We have done more in distribution than in preparation of printed information during the year past. The following printed matter is constantly in use: —

1. Report of first Commission to investigate the Condition of the Adult Blind, 1906.

2. Report of the ninth general convention of the American Association of Workers for the Blind (held in Boston, August, 1907), published by the "Outlook for the Blind."

3. Pamphlet, "Advice to Parents of Blind Children" (in English and in French), translated by Edward E. Allen from the report of 1893 of the Private Institution for the Blind in Linz, in Upper Austria. Reprinted through the commission, 1906 and 1907.

4. Reprints: From the "Outlook for the Blind," — (1) "Prevention of Unnecessary Blindness a Public Duty," August, 1907, F. Park Lewis, M.D.; (2) "Report of the Uniform Type Committee," American Association of Workers for the Blind, August, 1907; (3) "Field Work and Co-operation," August, 1907, Lucy Wright; from "Boston Transcript," — "Sketching with a Loom," April 15 and 22, 1908; from a paper read at the annual meeting of the Massachusetts Medical Society, June 10, 1908, "Ophthalmia Neonatorum," Frederick E. Cheney, M.D.

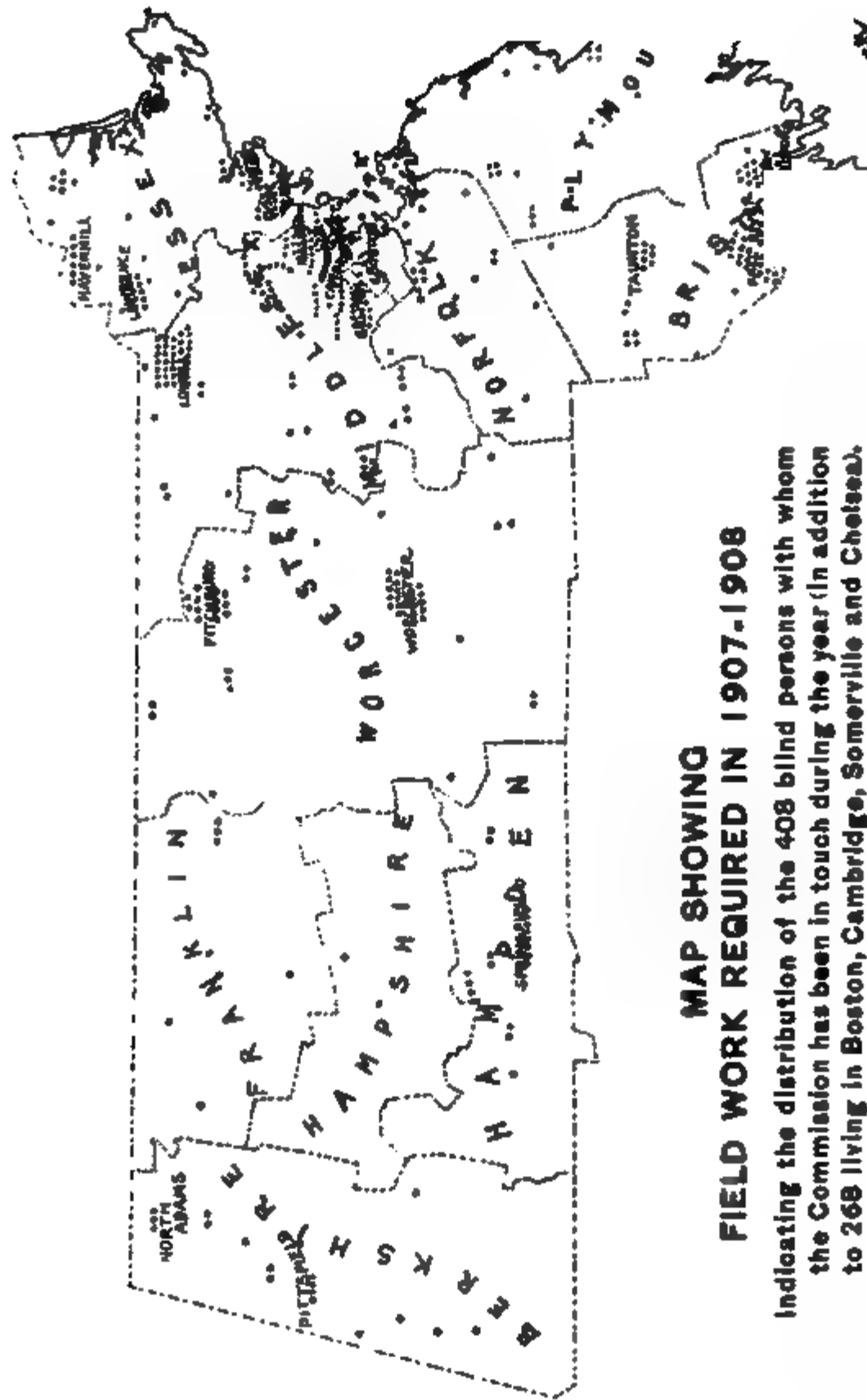
5. "Stop Blindness," a leaflet prepared by the Buffalo Association for the Blind.

II. Field Work.

Field work consists of response to all applications for work, training, help or advice, by visiting, suitably investigating and referring them to proper sources, whether our industrial department, other agencies for the blind, or general agencies.

During the past year we have in all departments been in touch with 676 blind persons, scattered throughout the State in 137 cities and towns, besides greater Boston. Of these, 246 were blind persons known to us for the first time this year. Of the remaining 420, as well, many had to be visited several times, and in their interest many visits had to be paid to friends, relatives, teachers and employers. From Dec. 1, 1907, to June 15, 1908, this work, in addition to other duties, was done largely by Miss Wright and Mr. Holmes, with temporary help at times from others. It was impossible to cover the ground, as a glance at the

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**MAP SHOWING
FIELD WORK REQUIRED IN 1907-1908**

Indicating the distribution of the 408 blind persons with whom the Commission has been in touch during the year (In addition to 268 living in Boston, Cambridge, Somerville and Chelsea).

DUKES
VIRGIL

ANTHONY

+

accompanying map, which brings out the distribution of this group of 676 blind, will suggest. In June, 1908, we were fortunate in securing, as deputy superintendent, Miss Lotta S. Rand, an experienced social worker, who devotes a large part of her time to field work; that is, to making first visits to applicants, working with volunteer committees and helping to extend the home work of blind women. This arrangement results both in saving a large proportion of Mr. Holmes' time, since we now refer to him only men who are possible candidates for work, and in enabling us to come much nearer to covering the ground. We have still a very small force for field work covering such an area as the State, and have on our list at this moment, pending investigation, 42 cases in addition to those which have come up since Dec. 1, 1908, and 47 children needing some one's supervision for the sake of schooling, medical care, etc.

III. Employment of Women.

The employment of blind women presents a very difficult problem. We have now on the waiting list for remunerative employment 14 women, who, if seeing, would find it necessary and possible to support themselves, but who, even if it were possible to place them in the shops at once, would as blind women need to have their wages supplemented in order to live away from home, and would without doubt need more care than the average boarding place could give.

Facilitating home industries and extending the sale of home work through the salesroom continue to be our lines of effort for helping women not already employed in the shops. During the year 8 women have been referred to the Cambridge shops for continuing or beginning training; 2 have had educational and industrial aid towards their training with other agencies; temporary work as a domestic has been found for 1 young woman; 5 have had home work facilitated by means of equipment, loans or stock at wholesale. Through us, loans of pianos, one from the Perkins School and one from a private individual, have been made to two blind women.

The chief resource, however, for women in their homes, is the salesroom. The care of this department of home work, transferred to us by the Perkins Institution Alumnae in October, 1907, has

been carried forward by us on much the same lines as those upon which it had been established. At the close of the first year, October, 1908, 80 blind women had sold goods, either consigned or order work, through us, in amounts varying for each person from a few cents to \$103.24. The number of women using the salesroom has not changed materially since then, but we have made some progress towards extending the sales of those already consigning; of training more women to fill orders for knitted goods, for which there is a winter demand and need of prompt supply; and in increasing the variety of stock. The sales have been extended chiefly through the summer salesroom at Manchester, which for the first time furnished an outlet for work at that season. The home work of women and of a few men was sold there, to the value of \$471.50. It should be stated that such amounts (after taking out the cost of materials, when furnished by us) are always paid directly to the workers, no commission being charged for the use of the salesroom. An interesting beginning of extending sales has also been made through the co-operation of the Middlesex Club of Lowell. This club has a committee on the blind, with whom Miss Rand arranged a special sale at the Middlesex Club House for one afternoon, and disposed of home work of both men and women to the value of \$49.04, representing 151 articles. Products of the shops were sold also, the total of the afternoon's sale amounting to \$78.34.

By employing a special teacher of knitting, we have given instruction and supervision on special orders to 15 workers.

Following is a list of home products now available at the salesroom, which shows our resources for taking orders for knitted goods, and, with the addition of brooms and mops from the shops, offers a very useful assortment in the line of household supplies:—

Netted, Knitted and Crocheted Articles.

Anklets.
Baby jackets.
Bath mats and mits.
Bean bags.
Bed shoes and socks.
Gloves.
Hammocks.
Helmets.

Kindergarten balls.
Mittens (all kinds).
Mufflers.
Reins.
Shawls.
Sweaters.
Tights.

Useful Household Supplies.

Aprons (all kinds).	Dusters.
Bags (ice, laundry, jelly, money, etc.).	Face cloths.
Cases (gown and travelling).	Holders.
Cloths (dish, glass, cleaning, silver, etc.).	Protection sleeves.
Covers (brooms and ironing boards).	Towels (crash, dish, glass, linen and roller).

In addition to the work of women, the home work of 6 men is sold through the salesroom, — wire work, baskets and rush-seat stools, which have brought to these men amounts varying for each man from a few dollars to \$282.73 in the course of the year. To give an idea of the combined resources of the salesroom, it is worth while in this connection to add the following list of shop products also on sale there:—

Artistic Hand-Woven Materials.

Bags (opera and sewing).	Dress patterns.
Bedspreads, etc.	Luncheon sets.
Belts.	Portières.
Card cases.	Purses.
Covers (book, couch, pillow, table, etc.).	Rugs (all kinds).
Curtains.	Scarfs (table and bureau).

LUCY WRIGHT,

Superintendent of Registration and Information.

APPENDIX B.

REPORT OF THE SUPERINTENDENT OF THE INDUSTRIAL DEPARTMENT ON THE CAMBRIDGE WORKSHOPS.

In the spring of 1907 the experiment station for the trade training of the blind, established by the Massachusetts Association for promoting the Interests of the Blind, was moved from Boston to Cambridge, and the industries which had been tested there were put upon a shop basis. In 1908 the efforts of the department have been to extend and standardize the work of the various shops.

It should be remembered that in the mop making, rug and art fabric weaving we have had no precedents to guide us. Our looms, for example, while similar to the old-fashioned hand loom, have been developed in our own shops. The materials, patterns and sizes for our rugs and art fabrics have been determined by constant experimentation in the workshop, and testing of their acceptance on the part of the purchasing public. The same problems have had to be considered with regard to the "Wundermop."

During the year 49 blind people have been admitted to the different shops for instruction, and steady employment was being furnished on the 30th of November to 40 blind people. The total sales for 1908 have shown an encouraging increase over those of 1907, in spite of the financial depression.

Shops for Men, 686 Massachusetts Avenue, Cambridge.

Rug Shop. — Nine apprentices have been taken into the rug shop during the last twelve months. At the end of the year 7 workers were employed as weavers, 2 as knotters, 3 as general helpers and 1 as a finisher. For a unit of 13 blind workers 1 boy and 2 girls with sight are needed in the manufacture of the rugs. All the departments have of course expert supervision, and the rug and art fabric shops share the services of a designer. A marked saving in the cost of raw material has been gained by the recon-

struction of our looms and the equipment of an adequate stock room. The most important undertaking in this shop has been the effort to standardize the size and patterns of the "Cambridge" rugs. Although we have reduced the variety carried in stock, we still seek special orders from interior decorators and individual customers. An experiment is being made in utilizing our rug fabrics as a wall covering, and it has been used with effect in one of the leading picture galleries in Boston. The rugs are sold in the best stores in Boston, New York, Chicago and other cities.

Mop Shop. — In the spring of 1908 we purchased new machinery and reorganized the shop, in an effort to ascertain what would be the maximum output at minimum cost with a unit group of workers. We have taken in 2 new workers and have had 5 blind operatives and 1 seeing lad making "Wundermops." This is practically the smallest number of men who can work to advantage in the manufacture of the mop, and we shall welcome the time when we can double this unit. The "Wundermop" is steadily growing in favor with the public, and our total sales for the year show an increase over those of last year.

Broom Shop. — Our broom shop is still continued rather as a place for instruction than for the commercial production of brooms. The output is sold mainly among local concerns, and it seems probable that a small group of workers can be employed permanently at this industry in Cambridge. Eleven men have received some training during the year, although only 3 workers have been employed continuously in the shop.

Chair Seating. — The reseating of chairs was commenced in Cambridge in the latter part of the year, and then only to furnish employment for a small number of workers. No attempt has been made to secure anything more than the chairs in the immediate vicinity of the shop.

Cobbling. — Instruction in cobbling has been continued at the men's shop throughout the year. This trade, however, has not been used as a shop industry, but is intended primarily for the use of the men when they return to their homes. While the superintendent was in England last summer he learned that some special tools had been devised to enable the blind to produce better work. A set of these was brought back to our shop, and some of them have been adopted, while others have been developed for our

special use by an American tool maker. It is encouraging to learn that cobbling has been systematically followed in several of the British institutions since it has been introduced there from the Continent. Up to the present time it would be impossible to make any statement with regard to the practicability of cobbling as a home industry for the blind. Some men have shown considerable adaptability in handling the tools and turning out good work. It must be recognized, however, that cobbling, more than any other trade we undertake, requires a high degree of mechanical skill. Not only that, but the home conditions of the man must be such that he has a fair prospect of setting up in business for himself, before we consider him as an applicant for instruction in this kind of work. During the year 22 men have entered the class for instruction. Of this number, 5 (on Nov. 30, 1908) are still being trained; 4 have withdrawn; 7 have been not able to reach a standard sufficiently high to succeed, or have so recently graduated that their success is not assured; and 6 have made a good beginning and are established, with a promising outlook. Until a larger number of men have followed cobbling in their homes for a longer period, it would not be just to ourselves or to the trade to pass judgment upon it.

Art Fabric Shop for Women, 277 Harvard Street, Cambridge.

Remunerative employment for blind women is recognized everywhere as one of the most difficult problems which those interested in the welfare of the blind have to face. The primary purpose of the art fabric shop is to ascertain whether hand weaving can be made a practical industry for a limited number of blind women. At the present time 12 are continuously occupied. One of these, for a part of the year, has been trying the experiment of working on a loom in her own home. She receives orders for work at the shop, and returns the goods when completed. The most interesting development in the hand weaving has been the ability which the young women have shown in the creation of original designs. Many of the motifs which they have produced have been of sufficient value to use in the designs of the articles placed on sale. The blind workers commit the patterns to memory with little difficulty, and reproduce them on the looms in much the same way that one commits to memory and reproduces a piece of music

on the piano. Each section of weaving suggests the following, as each phrase in a musical composition suggests and leads to the next. A person without sight finds the exact location at which a colored thread is to be introduced into the fabric by the warp threads raised by means of pedals into definite groups, which are as readily distinguishable to touch as are the raised (or black) notes on a piano keyboard. The various colored threads are given to the worker, and she places them where she can easily find them.

The fabrics produced by our young women are sold strictly on their merits, and the highest standard is maintained. "It has come to pass that the discriminating people in Boston, some of whom are conversant with the best fabrics the world over," said a recent editorial writer in the Boston "Transcript," "recognize the products of the commission's shop as unsurpassed in Boston for the quality of their workmanship, artistic design and taste."

CHARLES F. F. CAMPBELL,

Superintendent, Industrial Department.

APPENDIX C.

REPORT OF THE DEPUTY SUPERINTENDENT OF THE INDUSTRIAL DEPARTMENT.

The accompanying tables give an analysis of work accomplished during the past year in training and employment, upon which I will comment only so far as concerns the training and employment of men. All applications for training or work for able-bodied men are now referred to me by the department of registration and information. After further investigation, they are in turn referred by me to the appropriate place for training or employment, whether in our own shops or elsewhere. In all, during the past year, this work has served to sift the needs of 218 men.

Table showing that 64 Persons have been given Training, or provided with Expenses while in Training, during the Past Year, Dec. 1, 1907, to Nov. 30, 1908, in 77 Ways.

	Number in Groups.	Indi- viduals not counted Elsewhere.
1. Through commission's shops: —		
At Cambridge: —		
Art fabric shop (women only),	4	4
Broom shop (men only),	11	11
Chair seating (men and women),	2	2
Cobbling class (men only),	22	19
Mop shop (men, 3; women, 2),	5	5
Rug shop (men and women),	9	8
	— 53	— 49
At Pittsfield: —		
Chair seating (cane, pith and rush) (men only), . .	17	11
Mattress making (men only),	1	—
	— 18	— 11
2. Through other agencies: —		
For the Blind: —		
Perkins School, piano tuning,	3	2
Perkins School, rush seating,	1	—



INSTRUCTION IN COBBLING. — Blind Men with Suitable Home Conditions are given Instruction in This Trade as a Home Industry.

Table showing that 64 Persons have been given Training, etc. — Con.

	Number in Groups.	Indi- viduals not counted Elsewhere.
General agencies: —		
Public Telephone School (car-fares, etc.),	1	1
School of Expression,	1	1
	— 6	— 4
Totals,	77	64

Of these, there have been 21 withdrawals, while 15 are still in training, 26 have completed training with good results, and 15 have completed training with uncertain results.

Industrial Training.

It will be seen that men have been referred to the Cambridge shops for training (with the intention of subsequent regular employment in our own shops) in the following lines: broom making, 11; rug weaving, 9; mop making, 3.

In the Pittsfield shop a total of 11 apprentices have been instructed, while provision has been made for three others who have not yet taken up their work, but probably will early next year. To the 11, training has been given as follows: in chair seating: (a) hand caning, 9; (b) cane webbing, 5; (c) pith, 6; (d) rush, 3; in mattress making, 1.

In the cobbling class in Cambridge, training has been furnished to 22, of whom 1 was unable to remain long enough to acquire any material advantage, because of sickness. Provision was made, in addition, for 2 who have not availed themselves of the opportunity. There have been trained in the Cambridge broom shop, not for employment there, 1; and trained at the Perkins Institution, the commission bearing incidental expenses, a total of 4: piano tuning, 3; rush seating, 1.

Some of those men have been subsequently employed in one or other of our shops, and others have gone to their own communities, to carry on the newly acquired trade as a home industry.

Employment Bureau.

The results of our efforts to find employment are outlined in the following table, which shows that 70 persons are now regularly employed, 64 in our own shops, 6 in competition with the seeing. Of these, 33 have been added during the year to the 31 employees continued from the preceding year. In addition, it will be noted that 14 persons have received temporary employment in 18 instances.

*Table showing that 70 Persons were given Regular Employment in 80 Ways;
that 14 Persons were given Temporary Employment in 18 Ways.*

	Number in Groups.	Individuals not counted Elsewhere.
I. Regular employment given:—		
1. At commission's shops:—		
At Cambridge:—		
Art fabric shop,	12	12
Broom shop,	3	3
Chair seating,	1	1
General work (in all shops),	4	4
Mop shop,	5	5
Mop agencies,	2	2
Mop royalties,	2	2
Rug shop,	11	11
	—40	—40
At Pittsfield:—		
Cabinet work,	1	
Chair seating, — cane, pith and rush,	8	
Cobbling,	1	
Foreman,	1	
Guide,	1	
Mattress making,	1	
	—13 ¹	10
At Lowell:—		
Broom making,	1	
Chair seating, — cane and pith,	6	
Cobbling,	1	
Foreman,	1	
Janitor and errands,	1	
Mattress making,	2	
	—12 ¹	8
At Worcester:—		
Chair seating, — cane and pith,	4	
Cobbling,	1	
Foreman,	1	
	— 6 ¹	3

¹ These figures cover sub-groups in which some individuals appear twice.

Table showing that 70 Persons were given Regular Employment, etc. — Con.

	Number in Groups.	Individuals not counted Elsewhere.
2. At commission office: —		
Telephone switchboard operator,	1	
Deputy superintendent, industrial department,	1	
	— 2	2
3. At salesroom: —		
Janitor, etc.,	1	
	— 1	1
4. Secured in competition with seeing: —		
Cordage factory, book bindery, box corner cutter, packing case maker, stand for flowers, piano fac- tory,	6	
	— 6	6
	— 80	— 70
II. Temporary work: —		
1. At commission's shops: —		
At Cambridge: —		
Cane seating,	1	
Guiding,	2	
Rug shop,	1	
	— 4	3
At Pittsfield: —		
Chair work, — cane, pith and rush,	5	
Cobbling,	1	
	— 6 ¹	4
At Worcester: —		
Caning,	1	
	— 1	1
2. At commission office: —		
Assistant, industrial department,	1	
Solicitor,	1	
	— 2	2
3. At Manchester salesroom: —		
Helper,	1	
	— 1	1
4. At other shops for the blind: —		
Perkins,	3	
	— 3	2
5. In competition with seeing: —		
Domestic,	1	
	— 1	1
	— 18	— 14
Totals,	98	84

¹ These figures cover sub-groups in which some individuals appear twice.

Fostering Home Industries.

The term “home industries” includes the work of those who practise any trades, repairing or constructive, suitable for the blind who work either literally in their own homes or in little individual shops of their own; also of those who engage in small mercantile enterprises, variety stores, grocery lines, etc.; also, those engaged in professional lines or agencies. The following table shows the various ways in which the commission has fostered such industries. The only distinctly new feature of the department this year has been the employment of a solicitor or business canvasser, whose services have been given to advertising and pushing the business of seventeen men. It should be added that every effort has also been made to secure the practical interest and support, continuously, of the community in which the workman is employed.

Table showing that 57 People benefited in 91 Ways by Loans, Equipment, etc.¹

	Number in Groups.	Individuals not counted Elsewhere.
1. By establishment and supervision: —		
Bakery,	2	2
Cobbling,	4	4
Cobbling and store,	1	1
	— 7	— 7
2. By loans of equipment, tools and stock at wholesale: —		
Tools, appliances, etc.:—		
Baker's equipment,	2	—
Braille writers,	6	6
Broom kit,	1	1
Cobbling kit,	8	3
Coffee mill,	1	1
Phonograph (for stenographic purposes),	1	1
Pocket slate,	1	1
Piano stool,	1	1
Sewing machine,	2	2
Typewriters,	3	1
Other equipment: —		
Cobbler's building,	1	1
Hen houses,	1	1
Poultry-raising outfit,	1	1

¹ The home work of the 80 blind women referred to on p. 23 is additional to these home industries.

Table showing that 57 People benefited in 91 Ways by Loans, etc. — Con.

	Number in Groups.	Individuals not counted Elsewhere.
Materials, stock, etc.: —		
Baker's stock,	2	—
Basketry,	1	1
Broom stock,	1	1
Caning materials,	2	2
Peddler's stock,	3	3
Stock for small stores,	2	1
Stock for mop agency,	2	2
Printing business cards,	3	2
Rent,	1	1
Travel,	1	1
	— 47	— 34
3. By securing increased patronage in established occupation: —		
Boarding house,	2	2
Broom making,	1	1
Caning,	8	7
Music, performing,	1	1
Music, teaching,	2	—
Salesman,	2	1
Store,	2	—
Tuning,	1	1
Upholstery,	1	—
	— 20	— 13
4. Increased patronage by use of commission's cavasser: —		
Number of cases,	17	3
	— 17	— 3
Totals,	91	57

Shops, other than those in Cambridge.

We have three shops outside of Cambridge, in which employ-
ment is given to a limited number of blind employees. The lines
of work done are, in general, chair seating, mattress making, cob-
bling and broom making, and each shop is the local agent of its
community for the "Wundermop." Over each shop the sign
"Workshop of the Massachusetts Commission for the Blind" is
swung; each is centrally located in the business part of its city,
and in full view of the passing public; each has at the head of its
working force a blind foreman, who is an expert workman in chair

and mattress work; each foreman is held responsible for the output of first-class work by his men, and is receiving wages from the commission for serving in this capacity. In each of these shops the patronage of the local public is asked and generously given, and, although there has been great fluctuation in the amount of work received, it has never been necessary to close down, or to lay off any workman for more than a brief period. In each locality patronage is solicited, and shop cards and order blanks are distributed, by a partially blind canvasser. The wages paid (other than the foreman) are either on a piece basis or on a sliding day-wage scale, based upon the production, and is invariably the price paid by the customer for work done, less the cost of raw material at wholesale rates, and less that only. The commission contributes in each case the general running expenses of the business, such as rent, supervision (including wages of blind foremen, in one case of seeing superintendent, and of such portion of the deputy superintendent's time as may be needed), light, heat, telephone service, advertising (including both printing and the services of the partially blind canvassers), trucking, etc. It also carries in each shop a supply of materials used in the various lines of work, bought at the best figures obtainable, and charged against the workman at exactly the same rate, no matter how small the quantity used by him may be.

Pittsfield Shop.

At 24 Dunham Street, Pittsfield, is located the oldest of these three shops. There during the past year have been employed at different times 12 men, including the foreman and partially blind janitor.

The lines of work carried on have been: reseating of chairs in cane (both hand woven and cane webbing), pith, splint and rush; making of new and renovating of old mattresses; cobbling; cabinet making (including the production of footstools, many of which have received pith or rush bottoms, also of sewing tables, shirt-waist boxes, tool chests and various similar articles); and a small amount of simple upholstery repairing. The total wages received have been \$1,604.01. The making of new mattresses of the cheaper grades is a new feature this year, and has been watched with special interest. We have supplied one of the leading furni-

ture houses in the city, and have recently secured a second as a future customer. Those in charge believe that in this line there are great possibilities of employment for the blind, and hope to see it more fully developed in the near future.

The Pittsfield shop is also used as a training school for apprentices in all varieties of chair seating and in mattress making. The blind foreman is also retained in the capacity of instructor in these lines. During the year 11 apprentices have been accepted, of whom all but 1 received instruction from the foreman exclusively. Provision has been made for 3 others toward the end of the year, who have not yet been in attendance. This shop also acts as a distributing center for chair-seating materials. The commission's supply of these materials — cane, cane webbing, pith, splint and rush — is stored there, and sent thence to the other smaller shops as required. It is also sold to any blind worker in these lines, in whatever quantity desired, small or large, at exactly the same pro rata figure which it costs us at wholesale, thereby giving each individual worker, either in shop or at home, the benefit of invested capital without interest.

Both because of the double use of this shop as a shop and school, and the special oversight, other than instruction, necessary to be given to such a group of men, and also because of the remoteness of Pittsfield from Boston, it has seemed best to retain the services of a local superintendent, who has full charge of all affairs connected with the shop except those which fall to the foreman. This arrangement is eminently satisfactory.

Lowell Shop.

On June 1, 1908, a shop was opened at 98 Central Street, Lowell, for the employment of blind men of the city and its immediate vicinity. A total of 8, including the foreman and partially blind janitor, has been employed. The lines of work there are chair seating in all varieties excepting rush, mattress renovating, cobbling and broom making. The total wages during the six months this shop has been running have been \$342.08. With the exception of a seeing bookkeeper, there is no person other than the foreman employed in connection with the administration of the affairs of this shop beyond the direction given by the deputy superintendent, and the services of the canvasser, as above stated.

Worcester Shop.

The third shop in this group was opened at 194 Front Street, Worcester, on Sept. 1, 1908, for the employment of the blind men of Worcester County. The lines carried on are chair seating in all varieties, including rush, mattress making and cobbling. There have been employed in the shop or on its working force 6 men, of whom, however, 2 were obliged to withdraw on account of sickness before work was well under way. The total wages paid have been \$168.49. This includes, however, the wages of a seeing boy, who formerly worked for the foreman and now acts as janitor and general helper.

CHARLES W. HOLMES,

Deputy Superintendent, Industrial Department.

APPENDIX D.

APPROPRIATION FOR GENERAL EXPENSES. — DISBURSEMENTS, DEC. 1, 1907, TO NOV. 30, 1908.

I. — ADMINISTRATION DEPARTMENT (GENERAL OFFICES).

Salaries (two seeing superintendents, seeing deputy superintendent, blind deputy superintendent, stenographer, one-third of salary of another seeing deputy superintendent, a special assistant and blind switchboard operator),	\$7,762 87	
Rent, heat, lighting and telephone,	1,382 86	
Travelling expenses,	1,171 54	
General expenses: —		
Express,	\$17 24	
Postage,	94 06	
Shelves in supply closet,	15 00	
Special typewriting,	17 03	
Stationery and printing,	58 40	
Sundries,	138 99	
Supplies,	61 40	
Samples, purchased in England for educational purposes,	39 84	
Photographs, etc., for exhibits,	89 08	
	<hr style="width: 10%; display: inline-block; vertical-align: bottom;"/> 531 04	
		<hr style="width: 10%; display: inline-block; vertical-align: bottom;"/> \$10,848 31
Additions to general furnishings and office equipment,		54 53

II. — REGISTRATION AND INFORMATION.

Clerical work,	\$45 00	
Supplies,	7 95	
	<hr style="width: 10%; display: inline-block; vertical-align: bottom;"/>	52 95

III. — INDUSTRIAL AND EDUCATIONAL AID.

A. Apprentices.

Board and tuition paid for apprentices and pupils (less refunds),	\$2,753 19	
Stock and tools furnished (net),	823 04	
	<hr style="width: 10%; display: inline-block; vertical-align: bottom;"/>	
Amounts carried forward,	\$3,576 23	<hr style="width: 10%; display: inline-block; vertical-align: bottom;"/> \$10,955 79

<i>Amounts brought forward,</i>	\$3,576 23	\$10,955 79
Special wages paid (in connection with establishing blind men and canvassing for work for chair-caning shops),	282 00	
Guiding, etc.,	127 22	
Travel and sundries (of this amount, 30 cents not drawn from appropriation),	130 75	
	<hr/>	\$4,116 20
Reimbursement to shops for time spent in aiding blind agents to sell janitors' supplies,	65 84	
Toward maintenance of salesroom,	927 24	
Cobbling class: —		
Materials (less refunds),	\$196 64	
Instruction,	836 00	
Clerical assistance,	16 48	
Express, sundries, etc. (of this amount, \$1.35 not drawn from appropriation),	41 10	
Rent, heat and janitor's service,	188 00	
	<hr/>	\$1,278 22
Additions to equipment,	42 90	
	<hr/>	1,321 12
Purchased and distributed for industrial training: —		
Two typewriters, at \$50,	\$100 00	
Six Braille writers,	72 00	
Twelve Braille pocket slates,	9 00	
Phonograph supplies,	1 60	
	<hr/>	\$182 60
Credit (sales): —		
One last year's Braille writer,	\$13 05	
One Braille slate,	75	
	<hr/>	13 80
	<hr/>	168 80
		<hr/>
		\$6,599 20
 <i>B. Broom Shop (December to June).</i>		
Merchandise,	\$88 47	
Wages to blind instructor,	225 00	
	<hr/>	
<i>Amounts carried forward,</i>	\$313 47	\$6,599 20 \$10,955 79

<i>Amounts brought forward,</i>	\$313 47	\$6,599 20	\$10,955 79
Clerical work,	9 37		
Rent, heat and janitor's service, Dec. 1, 1907, to June 1, 1908,	68 76		

\$391 60

Incidental expenses: —

Express,	\$8 73
Lighting,	93
Sundries,	4 75
Supplies,	7 15
Travel,	1 35

22 91

\$414 51

Equipment,	61 80
------------	-------

476 31

(The broom shop became a part of the industrial department June 1, and all its assets were turned over to that department. Income from sales for six months, \$236.75.)

*C. Home Industries for Women: Maintenance
(drawn from Appropriation and Revenue).*

Merchandise,	\$966 25
Payments to blind women,	741 74
Salaries, seeing assistants, etc.,	758 76
Rent, Dec. 1, 1907, to Dec. 1, 1908,	540 00

Incidental expenses: —

Advertising,	\$15 00
Express,	50 60
Postage,	29 36
Sundries,	3 20
Supplies,	7 14
Travel,	53 47
Electric lighting,	3 00

161 77

\$3,168 52

Equipment,	22 37
------------	-------

\$3,190 89

Less amount paid from revenue,	114 30
--------------------------------	--------

3,076 59

10,152 10

Amount carried forward, \$21,107 89

<i>Amount brought forward,</i>	.	.	.	.	.	.	\$21,107 89
Sales in this department: —							
Boston salesroom,	.	.	.	.	.	.	\$1,477 58
Manchester salesroom,	.	.	.	.	.	.	322 95
							<hr/>
Total sales,	.	.	.	.	.	.	\$1,800 53
Inventory,	.	.	.	.	.	.	875 36
							<hr/>
Total sales and inventory,	.	.	.	.	.	.	\$2,675 89
Inventory Dec. 1, 1907,	.	.	.	.	.	\$765 26	
Expenses from appropriation,	.	.	.	.	.	3,054 22	
Expenses from revenue,	.	.	.	.	.	114 30	
						<hr/>	3,933 78
							<hr/>
							\$1,257 89
Less merchandise deductions from payments to							
consignors,	.	.	.	.	.	.	6 48
							<hr/>
							\$1,251 41
Due blind women for November labor,	.	.	.	.	.	64 02	
Due consignors on November sales,	.	.	.	.	.	41 30	
							<hr/>
Total cost,	.	.	.	.	.	.	<u>\$1,356 73</u>

IV. — PITTSFIELD SCHOOL FOR APPRENTICES.

Merchandise,	.	.	.	.	.	.	\$765 57
Paid to blind,	.	.	.	.	.	.	1,604 01
Paid to seeing,	.	.	.	.	.	.	513 06
Rent and heat,	.	.	.	.	.	.	423 83
Travelling,	.	.	.	.	.	.	78 10

Incidental expenses: —							
Advertising,	.	.	.	.	.	\$187 38	
Cleaning,	.	.	.	.	.	26 50	
Electric lighting,	.	.	.	.	.	16 15	
Express and cartage,	.	.	.	.	.	155 35	
Postage,	.	.	.	.	.	15 00	
Stationery and printing,	.	.	.	.	.	24 05	
Sundries,	.	.	.	.	.	21 56	
							<hr/>

Amounts carried forward, . . . \$445 99 \$3,384 57 \$21,107 89

Amounts brought forward,	.	.	\$445 99	\$3,384 57	\$21,107 89
Supplies,	.	.	.	8 61	
Telephone,	.	.	.	71 18	
				<u>525 78</u>	
				<u>\$3,910 35</u>	
Additions to plant,	.	.	.	39 99	
				<u>\$3,950 34</u>	
Less amount paid by department from revenue,	.			956 36	
				<u>2,993 98</u>	

V. — LOWELL SHOP (JUNE TO NOVEMBER, 1908, INCLUSIVE).

Paid to blind foreman and assistant,	.	.	.	\$100	00	1
Rent,	.	.	.	108	00	
Clerical work,	.	.	.	10	00	
Advertising,	.	.	.	5	04	
Coal,	.	.	.	3	75	
Express,	.	.	.	37	44	
Lighting,	.	.	.		36	
Fitting-up expense,	.	.	.	30	86	
Sundries,	.	.	.	12	68	
Supplies,	.	.	.	11	69	
Postage,	.	.	.	2	02	
Stationery and printing,	.	.	.	23	75	
Travel,	.	.	.		30	
				\$345	89	
Cash advance drawn,	.	.	.	40	00	
Equipment,	.	.	.	163	92	
						549 81

VI. — WORCESTER SHOP (SEPTEMBER TO NOVEMBER, 1908, INCLUSIVE).

Paid to blind foreman,	.	.	.	.	.	\$69 00
Rent,	.	.	.	.	.	75 00
Equipment expense,	.	.	.	.	.	47 38
Advertising,	.	.	.	.	.	91
Coal and coke,	.	.	.	.	.	2 60
Express,	.	.	.	.	.	2 30
Amounts carried forward,	.	.	.	.	.	\$197 19 \$24,651 68

¹ In addition to \$100, noted above, the blind earned \$242.08 by piece work in six months.

² In addition to \$69, noted above, the blind earned \$99.49 by piece work in three months.

Amounts brought forward,	.	.	.	.	\$197 19	\$24,651 68
Postage,	.	.	.	.	1 30	
Stationery and printing,	.	.	.	.	19 25	
Sundries,	.	.	.	.	2 25	
Supplies,	.	.	.	.	4 48	
					\$224 47	
Cash advance drawn,	.	.	.	.	10 00	
Equipment,	.	.	.	.	88 85	
						323 32

VII. — CHAIR CANING (CAMBRIDGE, — TWO MONTHS).

Clerical work,	\$6 06
Printing cards and tags,	13 54
Express,	7 05
	<hr/>
	26 65
	<hr/>
	\$25,001 65

Deduct charges paid for by industrial department: —

General industrial aid express,	.	.	.	.	\$0 30
Cobbling class express,	.	.	.	.	1 35
					<hr/>
					1 65

Total appropriation for general expenses, . . . \$25,000 00

(\$15 was refunded on equipment expense of Worcester shop, but has not been deducted from the total cost of maintenance, because not yet credited on bills to treasurer. After deducting \$1.65 for industrial department advance, there remains a balance of \$13.35 to be credited.)

General assets: —

Administration furnishings and fixtures,	.	.	.	.	\$1,766 68
General industrial and educational aid equipment,	.	.	.	.	239 63
Cobbling class equipment and inventory,	.	.	.	.	185 42
Home industries for women,	.	.	.	.	3,134 34
Pittsfield school for apprentices,	.	.	.	.	1,042 10
Lowell shop equipment,	.	.	.	.	163 92
Worcester shop equipment,	.	.	.	.	88 85
					<hr/>
					\$6,620 94

RESULTS OF OPERATIONS IN THE VARIOUS BRANCHES OF THE
INDUSTRIAL DEPARTMENT, DEC. 1, 1907, TO NOV. 30, 1908.

ART FABRIC SHOP.

Cash sales,	\$169 26	
Charge sales,	409 28	
	<hr/>	
	\$578 54	
Less discounts and commissions deducted,	38 07	
	<hr/>	
Net sales,	\$540 47	
Finished goods sent:—		
To Boston salesroom,	3,213 48	
To Manchester salesroom,	213 91	
To home work salesroom,	63	
	<hr/>	
	\$3,968 49	
Inventory Nov. 30, 1908,	3,182 88	
	<hr/>	\$7,151 37
Inventory Dec.1, 1907,	\$1,300 88	
Raw material purchased,	1,126 76	
Raw material received from rug shop,	61 46	
Blind labor on goods manufactured,	2,163 04	
Seeing labor on goods manufactured,	507 00	
	<hr/>	5,159 14
		<hr/>
Gross profit,		\$1,992 23

Operating Expenses.

Salaries to seeing,	\$1,722 50	
Rent,	\$649 96	
Water rates,	26 00	
Wages, blind janitor,	149 57	
Advertising,	22 50	
Coal,	219 66	
Express and freight,	44 96	
Cleaning and repairs,	84 25	
Lighting,	115 28	
Postage,	27 56	
Sundries (including equipment ex- pense),	53 73	
	<hr/>	
Amounts carried forward,	\$1,393 47	\$1,722 50 \$1,992 23

<i>Amounts brought forward,</i>	.	.	\$1,393 47	\$1,722 50	\$1,992 23
Supplies, . . . . .	.	.	70 37		
Supplies from mop shop, . . . . .	.	.	98		
Stationery and printing, . . . . .	.	.	19 75		
Telephone, . . . . .	.	.	81 71		
Travel, . . . . .	.	.	12 34		
			<hr/>		
			\$1,578 62		
Credit: —					
Special receipt through superintendent of industrial department, . . . . .	.	.	\$18 50		
For use of photos, . . . . .	.	.	75 00		
			<hr/>		
			93 50		
			<hr/>	1,485 12	
Total net operating expenses, .. . . .	.	.		<hr/>	3,207 62
Deducting gross profit leaves a net cost of					<hr/>
					\$1,215 39
					<hr/>

RUG SHOP.

Cash sales, . . . . .	.	.	.	.	.	.	\$231 56
Charge sales, . . . . .	.	.	.	.	.	.	5,045 88
							<hr/>
							\$5,277 44
Less allowances and discounts and returned merchandise, . . . . .	.	.	.	.	.	.	302 48
							<hr/>
Net sales, . . . . .	.	.	.	.	.	.	\$4,974 96
Finished goods sent to salesroom: —							
As merchandise, . . . . .	.	.	.	.	.	.	\$2,380 38
As furnishings, . . . . .	.	.	.	.	.	.	26 75
							<hr/>
							2,407 13
Sent to Manchester, . . . . .	.	.	.	.	.	.	164 55
Sent to other departments, . . . . .	.	.	.	.	.	.	62 06
							<hr/>
							\$7,608 70
Inventory Nov. 30, 1908, . . . . .	.	.	.	.	.	.	7,439 85
							<hr/>
							\$15,048 55
Inventory Dec. 1, 1907, . . . . .	.	.	.	.	.	.	\$3,839 53
Raw material purchased, . . . . .	.	.	.	.	.	.	6,750 32
							<hr/>
<i>Amounts carried forward,</i>	.	.	.	.	.	.	\$10,589 85
							\$15,048 55

<i>Amount brought forward,</i>					\$6,425 61
Merchandise sent out as advertising samples,				23 63	
Merchandise sent to salesroom,				65 77	
Merchandise sent to Manchester, \$4.38; other departments, \$1.08,				5 46	
					<u>\$6,520 47</u>
Inventory Nov. 30, 1908,				6,132 24	
					<u>\$12,652 71</u>
Inventory Dec. 1, 1907,				\$1,027 34	
Raw material purchased (net),				8,647 67	
Raw material from other departments,				60	
Blind labor on goods manufactured,				1,252 80	
Seeing labor on goods manufactured,				14 39	
					<u>10,942 80</u>
Gross profit,					<u>\$1,709 91</u>

, Operating Expenses.

Salaries to seeing,				\$1,005 60
Salaries to blind overseer (four months),				156 00
Commission to blind agents,				464 77
Commission on sales (six months),				136 34
Royalty to blind inventors,				277 03
Rent,				\$208 02
Blind janitor,				188 54
Advertising (printing, etc.),				75 04
Advertising samples,				23 63
Coal,				96 75
Cleaning and repairs,				49 70
Express and freight,				328 35
Lighting,				15 02
Postage,				36 90
Stationery and printing,				19 33
Supplies,				117 46
Supplies to other departments,				48
Telephone,				65 16
Travel,				149 70
Sundries (including equipment expense),				90 48
				<u>\$1,464 56</u>

<i>Amounts carried forward,</i>			\$1,464 56	\$2,039 74	\$1,709 91
---------------------------------	--	--	------------	------------	------------

Amounts brought forward, . . . \$1,464 56 \$2,039 74 \$1,709 91

Credit:—

Payment from general appropriation,
for rent, heat and janitors' service on
account of broom shop for six months,
to June 1, 1908,

68 76

1,395 80

Total net operating expenses, 3,435 54

Deducting gross profit leaves a net cost of \$1,725 63

BROOM SHOP (JUNE 1 TO NOV. 30, 1908).¹

Cash sales, \$51 16

Charge sales, 225 24

\$276 40

Less discounts and allowances, 89

Net sales, \$275 51

Brooms sent to salesroom, 3 08

Brooms sent to Manchester, 1 74

\$280 33

Inventory Nov. 30, 1908, 261 64

\$541 97

Inventory June 1, 1908, \$55 09

Raw material purchased, 321 64

Blind labor on goods manufactured (including fore-
man's wages),

344 76

721 49

\$179 52

Operating Expenses.

Clerical work, \$18 99

Rent, etc., 85 20

Coal, 21 25

Express, 8 80

Postage, 75

Amounts carried forward, \$134 99 \$179 52

¹ From August, 1907, to June 1, 1908, this shop was considered a part of general industrial and educational aid.

<i>Amounts brought forward,</i>		\$134 99	\$179 52
Sundries (including equipment expense),		9 24	
Supplies,		5 46	
Travel,		6 08	
		<hr/>	155 77
Total net cost of operation,			<hr/> <hr/> \$335 29

TRACK BROOM DEPARTMENT.

Charge sales,		\$115 00	
Cash sales,		10 52	
		<hr/>	
		\$125 52	
Merchandise sent out as advertising samples, (No inventory Nov. 30, 1908.)		25	
		<hr/>	\$125 77
Inventory Dec. 1, 1907,		\$42 49	
Raw material purchased,		44 87	
Blind labor on goods manufactured,		37 92	
		<hr/>	125 28
Gross profit,			<hr/> \$0 49

General Expenses.

Salaries to seeing,		\$2 34	
Commission to blind agent,		15 00	
Royalty to blind inventor,		7 50	
Advertising samples,		25	
Express,		10 25	
Sundries,		20	
Supplies,		20	
		<hr/>	35 74
Total net cost,			<hr/> <hr/> \$35 25

SALESROOM.

Cost of Selling Merchandise.

Salaries and wages to seeing,		\$672 42	
Blind janitor,		258 35	
Rent (including heat),		700 00	
Lighting,		68 13	
		<hr/>	
Amount carried forward,		\$1,698 90	

<i>Amount brought forward,</i>	.	.	.	.	\$1,698 90	
Telephone,	.	.	.	.	75 07	
Advertising,	.	.	.	.	87 92	
Express,	.	.	.	.	21 74	
Postage,	.	.	.	.	29 20	
Sundries (including extra cleaning),	.	.	.	.	52 93	
Supplies,	.	.	.	.	66 65	
Printing and stationery,	.	.	.	.	11 84	
Travel,	.	.	.	.	30 80	
Commissions on sales (not including merchandise sold at wholesale),	.	.	.	.	79 19	
Cash discounts on sales,	.	.	.	.	14 50	
					<hr/>	\$2,168 74
Received from general appropriation toward maintenance,	.				927 24	
					<hr/>	\$1,241 50
Depreciation caused by sales at wholesale,	.	.			\$247 94	
Reduction on samples, etc. (as noted below),	.				338 23	
					<hr/>	586 17
					<hr/>	
Total net cost of operation,	.	.	.	.		\$1,827 67

	Rugs.	Linen.	Mops, Brooms, etc.	
Cash sales,	\$305 65	\$466 22	\$45 90	
Charge sales,	1,883 29	1,313 56	30 33	
	<hr/>	<hr/>	<hr/>	
	\$2,188 94	\$1,779 78	\$76 23	\$4,044 95
Sent to Manchester,	.	\$83 00		
Sent to home work salesroom,	.	3 00		
		<hr/>		86 00
				<hr/>

Total sales and merchandise to other departments, . \$4,130 95

Merchandise inventory at manufacturing cost, Nov.

30, 1908,	.	.	.	.	\$3,520 56	
Difference between manufacturing cost and retail price of goods as charged by shops,	.	.	.	.	1,196 92	
					<hr/>	\$4,717 48
Less 50 per cent. reduction on selling price of samples and faded merchandise,	.	.	.	.	338 23	
Inventory and sales Nov. 30, 1908,	.	.	.	.	<hr/>	4,379 25
					<hr/>	\$8,510 20
					<hr/>	

Inventory at selling price Dec. 1, 1907,	\$3,433 66
Received from shops Dec. 1, 1907, to Nov. 30, 1908: —	
Linen shop,	3,213 48
Rug shop,	2,380 38
Broom shop,	3 08
Mop shop,	65 77
	<u>\$9,096 37</u>
Inventory and sales Nov. 30, 1908,	8,510 20
Depreciation of merchandise (reduction of selling price),	<u>\$586 17</u>

All merchandise sent to this department by the shops is invoiced at the selling price, although the stock, as a commission asset, is figured at cost.

In addition to rugs, linen, mops and brooms, baskets and wire work, consigned by blind home workers (men), were also sold as follows: —

Dec. 1, 1907, to May 31, 1908 (memorandum account),	\$107 80
June 1 to Nov. 30, 1908 (part of regular accounts),	136 95
Total,	<u>\$244 75</u>

MANCHESTER SALESROOM, OPEN FROM JULY 6 TO SEPT. 21, 1908 (ABOUT ELEVEN WEEKS).

Industrial Department Sales.

	Rugs.	Linen.	Mop.	Brooms.	Total.
Cash,	\$112 80	\$163 75	\$5 40	\$0 70	\$282 65
Charge,	118 20	144 60	55	—	263 35
	<u>\$231 00</u>	<u>\$308 35</u>	<u>\$5 95</u>	<u>\$0 70</u>	<u>\$546 00</u>

Merchandise received from shops and salesroom at 25 per cent. less than selling price: —

Salesroom (linen), net,	\$83 00
Linen shop,	213 91
Rug shop,	164 55
Broom shop,	1 74
Mop shop,	4 38
Total cost to department of merchandise,	<u>467 58</u>
Difference between cost and selling price,	<u>\$78 42</u>

Cost of Maintenance.

Salaries to seeing clerks,	\$68 18
Blind assistant,	60 50
Advertising,	35 95
Amount carried forward,	<u>\$164 63</u>

<i>Amount brought forward,</i>		\$164 63
Express,		24 95
Postage,		13 00
Sundries (including equipment expense),		13 85
Supplies,		27 36
Travel,		25 89
Total cost of maintenance,		<u>\$269 68</u>
Deduct net loss of department as per ledger account (see summary of operations),		128 24
		<u></u>
Gross profit,		\$141 44
Subtract profit on sales,		78 42
		<u></u>
Additional profit accruing to department through home work salesroom orders, credited as sales but not charged as merchandise,		\$63 02
In addition to industrial department sales there were sold:—		
Baskets, stools, etc., consigned by blind men (and included in total sales in condensed statement of results),		\$147 05
		<u></u>
Home work salesroom, stock and orders,		\$274 30
Home work salesroom, consignments,		48 65
		<u></u>
Included in home work salesroom report,		\$322 95
		<u></u>

The amount \$63.02 is noted as a gain to the industrial department as a whole. (See condensed statement of results.)

GENERAL EXPENSE ACCOUNT (EXPENSES INCURRED ON ACCOUNT OF THE INDUSTRIAL DEPARTMENT, AND YET NOT DIRECTLY CHARGEABLE TO ANY PARTICULAR SHOP).

Salaries to seeing (including two-thirds of book-keeper's salary),		\$790 64
Express,		25
Advertising (on account of shops),		35 75
Postage (in connection with accounts),		18 60
Supplies (accounts and shops),		60 92
Sundries (shops),		22 55
Travel,		3 20
		<u>\$931 91</u>
Add telephone exchange service for two months,		102 13
		<u></u>
Total disbursements,		<u>\$1,034 04</u>

PLANTS AND FURNISHINGS.

Art Fabric Shop.

Net value Dec. 1, 1907,	\$1,492 74
Additions Dec. 1, 1907, to Nov. 30, 1908,	258 91
	<hr/>
	\$1,751 65
Less depreciation for one year (on purchases to June 1, 1908),	148 60
	<hr/>
	\$1,603 05
Less cash sales, May and November, 1908,	55 50
	<hr/>
Net value Nov. 30, 1908,	<u>\$1,547 55</u>

Additions to plant include: remodelling of 4 looms, \$155; purchase of cabinet, \$25. The balance was made up of sundry supplies.

Rug Shop.

Net value Dec. 1, 1907,	\$1,260 17
Additions Dec. 1, 1907, to Nov. 30, 1908,	147 31
	<hr/>
	\$1,407 48
Less depreciation for one year (on purchases to June 1, 1908),	128 90
	<hr/>
Net value Nov. 30, 1908,	<u>\$1,278 58</u>

Additions to plant include: lumber for closet, \$48.29; one-half cost of Fairbanks scales, \$11; suit case for samples, \$9; 7 baskets for looms, \$7.67; 2 desk chairs, \$7.44; gas stove, \$2.50; desk, \$3. The balance was made up of sundry supplies.

Mop Shop.

Net value Dec. 1, 1907,	\$347 88
Additions Dec. 1, 1907, to Nov. 30, 1908,	507 44
	<hr/>
	\$855 32
Less depreciation for one year (on purchases to June 1, 1908),	55 28
	<hr/>
Net value Nov. 30, 1908,	<u>\$800 04</u>

Additions include: 1 sewing machine and motor, \$235; 1 mop end cutter, \$115; mop clamps, \$36; one-half cost of Fairbanks scales, \$11; twine trays, \$9; 4 baskets, \$5.33.

Broom Shop.

Value of plant as turned over to industrial department June 1, 1908,	\$142 47
Additions, June 1 to Nov. 30, 1908,	18 78
	<hr/>
	\$161 25
Less 5 per cent. depreciation on purchases to June 1, 1908,	7 12
	<hr/>
	\$154 13
Cash sale in October,	1 24
	<hr/>
Net value Nov. 30, 1908,	<u>\$152 89</u>

General Salesroom.

Net value Dec. 1, 1907,	\$1,087 05
Rug received from rug shop as furnishing,	26 75
Sundry supplies purchased,	3 75
	<hr/>
	\$1,117 55
Less depreciation for one year (on purchases to June 1, 1908),	107 35
	<hr/>
Net value Nov. 30, 1908,	<u>\$1,010 20</u>

Manchester Salesroom.

Display signs,	\$18 40
--------------------------	---------

SUMMARY OF OPERATIONS FOR ONE YEAR, DEC. 1, 1907, TO NOV. 30, 1908.

Net cost: —

Art fabric shop,	\$1,215 39
Rug shop,	1,737 65
Mop shop,	1,725 63
Broom shop,	335 29
Track broom department,	35 25
General salesroom,	1,827 67
Manchester salesroom,	128 24
General expense account and telephone,	1,034 04
	<hr/>
	\$8,039 16
Less interest on deposits and cash surplus,	20 96
	<hr/>
	\$8,018 20
Add depreciation on plants,	447 25
	<hr/>
Amount carried forward,	\$8,465 45

<i>Amount brought forward,</i>						\$8,465 45
Subtract reduction in difference between cost and selling price of salesroom merchandise, as follows:—						
Nov. 30, 1907, difference,						\$1,140 46
Nov. 30, 1908, difference,						858 69
						<u>\$281 77</u>
Or difference between manufacturing cost and selling price of unsold merchandise at salesroom, consigned by shops between Dec. 1, 1907, and Nov. 30, 1908,						
						281 77
						<u><u>\$8,183 68</u></u>
CONDENSED STATEMENT OF RESULTS FOR ONE YEAR, DEC. 1, 1907, to Nov. 30, 1908.						
Total merchandise cash purchases,						\$16,899 29
Total cash purchases for plants,						954 59
Total labor, selling and manufacturing expense,						19,895 05
						<u></u>
Total operating cost,						\$37,748 93
Add broom shop plant acquired June 1, 1908,						142 47
Add broom shop plant merchandise, inventory of June 1, charged November 30,						55 09
Consigned goods purchased (and sold) from blind men, June 1 to Nov. 30, 1908,						286 50
						<u>\$38,232 99</u>
Total stock sales for the year,						\$16,954 26
Total sales of consignments, June 1 to Nov. 30, 1908,						286 50
Total sales of plant sundries,						56 74
Sold to home work salesroom,						3 63
Advertising samples distributed,						24 88
						<u>\$17,326 01</u>
Inventories Nov. 30, 1908:—						
Raw material,						\$6,211 87
Finished goods,						14,094 18
Coal,						235 79
						<u>\$20,541 84</u>
Inventories Dec. 1, 1907:—						
Raw material,						\$2,975 10
Finished goods,						5,547 24
						<u>8,522 34</u>
Add gain in inventories,						12,019 50
(More than two-thirds of this gain in inventories is in the form of finished goods.)						
						<u></u>
<i>Amounts carried forward,</i>						\$29,345 51 \$38,232 99

Amount brought forward, **\$3,474 65**

Merchandise on hand, as per inventories:—

	Raw Material.	Finished Goods.	Sundries.	Total.	
Art fabric shop,	\$1,630 03	\$1,444 56	\$108 29	\$3,182 88	
Rug shop, .	3,604 32	3,771 78	63 75	7,439 85	
Mop shop, .	844 61	5,239 82	47 81	6,132 24	
Broom shop, .	132 91	112 79	15 94	261 64	
General sales-					
room (at man-					
u f a c t u r -					
ing cost), .	—	3,520 56	—	3,520 56	
Janitor supplies					
department, .	—	4 67	—	4 67	
	<hr/>	<hr/>	<hr/>	<hr/>	
	\$6,211 87	\$14,094 18	\$235 79	\$20,541 84	20,541 84

Plants:—

Art fabric shop,	\$1,547 55	
Rug shop,	1,278 58	
Mop shop,	800 04	
Broom shop,	152 89	
General salesroom,	1,010 20	
Manchester salesroom,	18 40	
	<hr/>	4,807 66

Total assets, **\$28,824 15**

Liabilities.

Accounts payable,	\$7,445 43	
Amount due general salesroom consignors, on		
baskets, etc., sold,	51 60	
	<hr/>	7,497 03

Net assets Nov. 30, 1908, **\$21,327 12**

Net assets Nov. 30, 1907,	\$13,856 74	
Appropriation for industries, 1907-08, representing		
capital invested,	\$15,000 00	
Broom shop assets, etc., placed to credit of indus-		
trial department, June 1, 1908,	654 06	
	<hr/>	15,654 06

Less net assets Nov. 30, 1908, **21,327 12**

Total net cost of maintenance (see summary of operations), **\$8,183 68**

NOTES.

The second annual financial report of the industrial department shows some interesting figures, in comparison with those for 1906-07.

The total sales of the industrial department products (rugs, linen, mops, brooms) for 1907-08 were \$16,954.26, against \$12,150.14 for the previous year. As the latter amount includes janitors' supplies sales of nearly \$2,500, and as this sort of merchandise was practically not sold during the last year, the gain in sales was really 75 per cent.

The larger output of the shops resulted in better wages to the blind, as well as employment of more workers. There was paid to the blind \$8,191.86, against \$5,662.05 in 1906-07, — a difference of more than \$2,500. This means a dollar put into the pockets of the blind for every dollar spent in operation for the year.

LENA E. MENDELSON,
Deputy Superintendent, Industrial Department.

FIRST ANNUAL REPORT

OF

THE TRUSTEES

OF THE

MASSACHUSETTS HOSPITAL SCHOOL

(FOR THE CARE AND EDUCATION OF THE CRIPPLED AND
DEFORMED CHILDREN OF THE COMMONWEALTH),

AT CANTON,

FOR THE

YEAR ENDING NOVEMBER 30, 1908.

BOSTON:

WRIGHT & POTTER PRINTING CO., STATE PRINTERS,
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1909.

APPROVED BY
THE STATE BOARD OF PUBLICATION.

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OF THE
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The Commonwealth of Massachusetts.

REPORT OF THE TRUSTEES OF THE MASSACHUSETTS HOSPITAL SCHOOL.

To His Excellency the Governor and the Honorable Council.

In presenting this annual report, the trustees desire to call attention to the successful operation of the institution during its first working year, as shown by the marked improvement in condition, health and strength of the children admitted, and also the increasing number of applicants for admission.

The need of some form of special industrial education for cripples is evident as soon as the attention of the community is called to the subject; and it would at first seem strange that no provision has hitherto been made for the care of this class of children, while institutions for the care and training of idiots, epileptics, the blind and the dumb have for many years been conducted by the Commonwealth.

This is probably due to the urgent demand for care of the feeble-minded or epileptics, owing to the difficulty met in home care, and the evident need of special expert training for the blind and dumb. The nurture of crippled children, however, has not only been regarded in most communities as a family duty, but even in many families as a source of parental satisfaction; special training has not been thought necessary.

A few facts and actual experience here and elsewhere show that in a community where education is considered a part of the function of the Commonwealth, the special industrial training of cripples should be one of the first duties of State government. Especially is it clear that children with unimpaired intellects, but disabled only in the activity of their limbs, may be capable of the best development, providing a fitting opportunity is offered them. There is justice in the demand for

help for those who with aid may become independent, and without assistance are doomed to become a burden.

It may be well to call attention here to some of the problems which present themselves to the management of an institution providing for the nurture, care and training of cripples.

Crippled children can be divided into two classes: those who are permanently, and those who are temporarily, crippled. The temporarily crippled are chiefly those who are suffering from diseases of the joints and the spine, for whom special care, preventing ordinary school life, is needed for a number of years. When such care is provided for a sufficiently long period, it can be expected that a substantial recovery will take place, with a disability varying according to the extent and seat of the original disease and the amount of care given to the condition. With proper treatment, a child with tuberculosis of the spine may recover in time so completely as to gain the use of all his faculties. He will, however, if deformed, be handicapped by his deformity in the competition incidental to bread-winning. With proper education and training suited to his condition, he may be fitted for an occupation fitted to his disability, which would be beyond his reach unless education were furnished him during the invalid years of his childhood. The happiness and success of the lives of these children are largely dependent upon their nurture and training during their disabled years.

The permanently crippled children are those with normal intelligence, suffering from forms of incurable paralysis of the limbs, from which little improvement can be expected. The children will always be disabled, and, unless specially trained, become a burden upon the community. If, however, special opportunities of education are furnished them suited to their condition, they may become either self-supporting or able to obtain some occupation which will diminish the burden of their support.

That this can be accomplished has been shown by several European institutions. The Royal Bavarian School for Cripples has educated and specially trained crippled children for more than half a century. The admirable day school in Boston, "The School for Crippled and Deformed Children," has



in the last fifteen years developed an excellent system of industrial training, in addition to an efficient primary course.

In the conduct of a State school for cripples it is essential to obtain the complete confidence of the citizens of the Commonwealth. A certain number of children will be found in almshouses and among the pauper population for whom no proper educational provision has been made. These become inmates of the institution; but a larger and equally if not more deserving class will be found in families of limited means. The parents of these children are able to provide home care for their children, but are without means for the special training adapted to the crippled or helpless condition. These children grow up in many instances in pitiable ignorance. Until the parents of such children are thoroughly satisfied as to the benefit to be derived from a State boarding school and of the considerate care furnished in such an institution, they will prefer to keep their children at home, even in a state of ignorance.

It is gratifying to be able to report that, although the Hospital School has not been in operation a full year, the increasing number and the character of applicants for admission not only demonstrate the satisfactory nature of the institution, but indicate that the demand for accommodations will in time be greater than was at first thought probable. As many of the children asking for admission come from homes in which the parents are self-supporting wage-earners, and in some instances able to pay a moderate amount for the education of a crippled child, it is evident that if the benefits of the institution are to be given to these deserving cases, the school should be free, either in the rules of admission, the charge, the official record of the inmates, or in its discipline or management, from the character of a pauper institution. The school should be maintained and developed as a State industrial school of a special character, and as free from the stigma of pauperism as is State education from the reproach of a charity. It is a function of the Commonwealth.

In view of the demonstrated fact that city and town officials are very reluctant to assume or authorize the support of children in this school, even though such children may have a legal

settlement in such city or town, and that even when such support is assumed the child thereby becomes a subject of city or town support, and in one sense a pauper, thus casting a shadow which is apt to continue over the child when it seeks an active part in the life of the world; and the further consideration that many parents of crippled children are so adverse to seeking public aid that they would sooner deprive their child of educational advantages, — the trustees suggest that the Legislature consider the advisability of State support and care for all children sent to the school, following the precedents of the Legislature heretofore adopted in reference to the insane and feeble-minded.

The State owes a duty to these children, who by reason of physical deformity are unable to receive proper education in the public schools, and yet are of sufficient intelligence so that under proper tutelage they can become self-supporting. It is for the Legislature to determine whether or not children whose parents are not able to pay for their proper care and tutelage should be cared for and educated at the school without in any way having cast over them the shadow of pauperism.

AGE LIMIT.

It is desirable to establish an age limit, and this has been placed tentatively between the years of five and fifteen. A certain amount of elasticity is necessary, and at present children both older and younger than these years have been admitted. It is, however, not desirable as a rule that old crippled children should be received in an institution planning efficient industrial training, for it is found that disabled children who have been too tenderly cared for much beyond the age of puberty are liable to develop a lack of initiative, and an indolence which is hard to overcome. A pauperization of character has been developed. When training, character building, is begun at an early age, as a rule a great desire for activity is seen, and the children are easily freed from the self-pitying condition which is often noticeable in the maimed.

In order to meet the demand upon an institution founded



GIRLS' DORMITORY, WEST BUILDING.

for the purpose for which this school was established, it is necessary to provide: first, home care; second, hospital care; and finally, education and industrial training.

HOME CARE.

As many of these children are those who have suffered previously from tuberculous disease, and the majority have led a shut-in life, it is essential that they should be given an environment in which fresh air and sunshine can be furnished without stint. It will be found that this has been amply given in this institution, as is demonstrated by the admirable physical condition of the inmates of the school.

HOSPITAL CARE.

As the State is furnished with a number of the best-equipped modern hospitals, it was thought by the Board of Trustees of the Massachusetts Hospital School undesirable to establish an institution which would be planned primarily as a hospital; a provision for hospital care, however, is necessary in all large institutions which house a large number of children, and special surgical care is also needed by crippled children.

EDUCATION.

The problem of education and industrial training of crippled children is regarded by the trustees of this institution as the most important part of its work until years of experience have demonstrated not only the wants of the cripples placed in a State institution, but also what occupations and training should be furnished in our community.

The experience gained in similar institutions elsewhere cannot be taken as an absolute guide in our community, as the demands of labor and the market vary considerably in our community from what exists in European centers. The Board of Trustees has left the educational problem for the present to develop along the lines which experience may show are likely to be most profitable. They have, however, provided for a primary education with the elements of industrial training, ex-

pecting to specialize at an early age, according to the degree of disability of the greater number of the inmates of the school, and the possibilities of finding remunerative occupations for those graduating from the institutions.

As no children are admitted to the school unless, owing to the disability presented, education elsewhere is not obtainable, special conditions of hours of work are needed, and also suitable methods and hours of instruction. The character of play allowed, as well as the development or restraint of a play instinct, demands special consideration. The best selection of studies according to the condition and limited future life of the inmates is difficult, and can be determined definitely only after it has become evident from actual experience what are the most common disabilities among the children admitted, and in what occupations of life such disabilities offer the least impediment.

At present the children are furnished a primary school education, and in addition special instruction in sewing, in sloyd and elementary carpentry. Opportunities for work in cobbling and simple farm work are furnished. A more comprehensive system of industrial training with early specialization of children well grounded in the elements of education is contemplated by the trustees, now that its first working year has made clearer the demands which will be made upon the new institution.

The trustees are glad to report the convalescence of their colleague, Dr. Morrison, whose severe illness has deprived them of the aid of his valued counsel for the last nine months.

Respectfully submitted,

EDWARD H. BRADFORD.

ALFRED S. PINKERTON.

LEONARD W. ROSS.

WILLIAM F. FITZGERALD.

WILLIAM A. MORRISON.

COVERED WALK CONNECTING ADMINISTRATION WITH EAST AND WEST BUILDINGS.



SUPERINTENDENT'S REPORT.

To the Trustees of the Massachusetts Hospital School.

I hereby submit the first annual report of the Massachusetts Hospital School for the year ending Nov. 30, 1908.

The site of the institution was admirably chosen. Its 65 acres of rolling land on the north shore of the beautiful Reservoir Pond contain about 18 acres of woodland, for the most part pine, which will afford ideal picnic and recreation grounds and opportunity for outdoor summer schools, — factors important in the combined care and education of disabled children.

By proclamation of the Governor, the institution was opened on Dec. 1, 1907. The work of organization progressed as rapidly as circumstances permitted, and on Jan. 14, 1908, when one dormitory was sufficiently completed for occupancy, 4 children were admitted by transfer from the State Hospital. Since no reliable information could be obtained as to the number, age, sex and the nature and extent of the disabilities of the patients who would be sent to us, details of furnishing and equipment have been met gradually, in order that such accommodations might be provided as experience showed to be necessary.

During the year 178 applications were received, and of this number 104 were admitted, — 70 boys and 34 girls. There were at the end of the year 87 children, — 60 boys and 27 girls, 1 boy being out on a visit, and 9 boys and 7 girls having been discharged. The maximum number at any one time was 90, and the daily average number, including the forty-five days' period when there were no patients, was 48.5—. Of those discharged, 2 were capable of self-support, 2 were much improved, 8 were improved and 4 were not improved.

The experience of the past year implies that parents are more reluctant to relinquish the care of their girls than their

boys to an institution, for crippling deformities do not exist in the proportion which our admissions indicate.

The average age of the children admitted was nine and one-half years. Twenty-six per cent. had never attended school, and 35½ per cent. were absolutely unable to read or write the simplest sentence when admitted. Those who had been able to go to school at all had attended with the greatest irregularity, being obliged to be absent for weeks or in some cases a year or more at a time.

In consideration of this deplorable want of knowledge, our educational work the past year has been directed along the elementary lines most essential for a vocational training; and the eagerness and enthusiasm with which the children have applied themselves, and the results accomplished, have been most gratifying.

The following cases will serve to illustrate the difficulties of classification according to age and educational standards, and the demands for special care and instruction: —

Case No. 7. — A six-year-old boy, very bright mentally, but unable to attend the public school because of a diseased spine; is now doing excellent first-grade work. In a few years he is expected to recover, as far advanced in school work as a normal child of the same age.

Case No. 11. — A boy of fifteen, who had never attended the public school because of a paralyzed leg; now walks with the aid of a splint. He is doing creditable first-grade work, and has advanced to the fourth grade in arithmetic.

Cases Nos. 48 and 49. — Of ten and nine years, respectively, two very bright girls, who have never been able to walk and could not attend the public schools in their wheel chairs; have practically completed the first-grade work, and have made rapid advancement in sewing and needlework.

Case No. 39. — A boy of fifteen years, intelligent, but so badly paralyzed that he is almost completely helpless; is learning to read and reckon, with great pleasure to himself and credit to his teacher.

Many of our children are so badly crippled that their attendance at public school would be impossible, and all of them require an arrangement of school and recreation hours very different from that prescribed for normal children.

The great patience and sincere personal interest of those in charge of the several departments of the institution have en-

PLAYROOM, WEST BUILDING.



abled children whose health would permit to receive instruction in various lines of practical work, including laundry and domestic work, sewing, cobbling, painting and carpentry. When thus usefully employed they are acquiring a breadth of elementary education which should enable us to determine into what special fields of labor their energies can profitably be directed later on. Steady progress has been made in the classes in sloyd, and boys who six months ago did not know the use of the simplest tool are now making really creditable articles, which they delight in showing to their friends as evidence of their advancement.

Many of the patients admitted have been of a helpless and neglected class, or those whose convalescence required longer treatment than the average general hospital could provide.

The out-of-door life enjoyed by all our children, even by the wheel-chair and bed patients, has produced most remarkable results in their physical improvement and ability to resist disease. Almost without exception their weight charts have shown a steady increase from the first. Colds are very rare, except among newly admitted cases. One girl was suffering from whooping-cough when admitted, and must have exposed many others before her disease was recognized and the case isolated; yet but two others contracted the disease, and they made very rapid recoveries. The three cases of diphtheria which occurred during the year also made speedy and uncomplicated convalescence. No other contagious or infectious diseases occurred during the year.

The farm is largely covered with scrub hardwood, and cannot be developed to a high state of cultivation for several years. The work of clearing the land will necessarily be expensive, and practically not any of our patients are physically able to assist in the work. In the mean time, the cost of maintenance will also be materially affected by the purchase of farm produce at market prices.

The work of improving the woodland by accepted methods of forestry has already commenced, in accordance with the valued advice of the State Forester. This, with gardening, which will be taken up as soon as possible, will provide means of practical instruction for our children. The results obtained from

planting small areas already cleared indicate that our farm products will eventually exceed our present consumption.

Of the 104 children admitted during the year, 61 were State, 28 town or city, and 15 private. While many of the public charges are doubtless made reimbursing cases by the towns and cities in which they are settled, it should be borne in mind that all such patients receive indirect support from the State in so far as the rate of \$3.25 per week is far below the actual cost of maintenance. There are many self-respecting parents of crippled children who have never received public aid, and are reluctant to appeal to the overseers of the poor for assistance; yet their own unassisted means are wholly inadequate to pay for the support of their unfortunate children away from home. Sometimes when they seek assistance they fail to receive it, as illustrated by the following case. A nine-year-old crippled girl, whose disability was such that the superintendent had requested her parents to remove her from the public schools, made application for admission to this school. The case was referred to the local board of the overseers of the poor, who refused to support the child at this institution, on the ground that the money at their disposal was not appropriated for educational purposes. This child could be supported at home by her father, but he realized that she was growing up in ignorance, without an inheritance of means to prevent her becoming a dependent in the future. I would suggest for your consideration this question of support, in the hope that the necessary steps may be taken so that children of this class may not be denied the education and care enjoyed by crippled pauper children.

The two dormitories now occupied will accommodate 120 children, and the administration building, heating, lighting and laundry facilities have been designed so that they can easily be extended to meet the requirements of 300 children. The appropriation provided by chapter 446 of the Acts of 1904 seems to be adequate for the completion of the whole plan, and now that there is no longer doubt as to the demand for the institution, accommodations for the remaining 170 should gradually be provided.

The medical and surgical attention required by a large pro-

CONGREGATE DINING ROOM.



portion of our cases, the separate sleeping apartments for children who have night cries or are untidy and require attention at night, and the isolation of patients suspected of some infectious disease, will be amply provided for in the infirmary now being planned.

I have been sustained by a very efficient corps of officers, of whose faithful assistance I wish to express my sincere appreciation; and to those employees who have had the interests of the institution at heart I would extend my thanks.

Grateful reference should be made to the trustees and the many friends of the institution who have contributed such gifts as furniture, a carriage, books, toys, fruit, confectionery, clothing, etc.; and especially are we indebted to the citizens of Canton for their many tokens of good will. During the summer automobiles were placed at the disposal of all the children who were able to enjoy a ride to Revere Beach, while the more feeble patients were treated to shorter rides about Canton.

The institution is indebted to the ministers of the gospel of the Canton churches, who have officiated at the Sunday afternoon religious services; and to Rev. John J. Farrell and his assistants, who have had charge of the spiritual welfare of the children of the Roman Catholic faith.

I am heartily grateful to the Board of Trustees for their encouraging advice and hearty co-operation during this very trying year.

Respectfully submitted,

JOHN E. FISH, M.D.,
Superintendent.

TERMS OF ADMISSION.

Crippled and deformed children of the Commonwealth between the ages of five and fifteen, who are mentally competent to attend the public schools, are eligible for admission.

Feeble-minded and epileptic children will not be received.

Payments for the board of private patients must be made in advance, unless sufficient surety therefor is given.

The institution is located on Randolph Street in the town of Canton, about one-eighth mile from the Blue Hill Street Railway and one and one-half miles from Canton and Canton Junction stations on the New York, New Haven & Hartford Railroad.

Post-office address, Canton, Mass.

Applications for admission should be made to the superintendent.

NATIVITY AND PARENTAGE OF CHILDREN ADMITTED.

Birthplace.	Patient.	Father.	Mother.
Massachusetts,	81	17	19
Other New England States,	4	4	4
Other States,	5	5	6
Total native,	90	26	29
Other countries:—			
Canada,	4	11	9
Newfoundland,	1	2	1
England,	2	6	7
Ireland,	—	11	8
Scotland,	—	1	2
France,	—	1	—
Switzerland,	—	1	—
Austria,	—	—	1
Italy,	1	4	3

NATIVITY AND PARENTAGE OF CHILDREN ADMITTED — *Concluded.*

Birthplace.	Patient.	Father.	Mother.
Syria,	1	2	2
Germany,	—	—	1
Sweden,	—	—	1
Turkey,	—	—	1
Russia,	5	14	15
Western Islands,	—	2	1
Total foreign,	14	55	52
Unknown,	—	23	23
Totals,	104	104	104

DISABILITY ON ADMISSION.

	Boys.	Girls.	Totals.
Pott's disease, with kyphotic deformity,	10	2	12
Pott's disease, with partial paraplegia,	2	1	3
Pott's disease, with thoracic deformity,	—	1	1
Tuberculous disease of the hip,	5	1	6
Tuberculous disease of both hips,	1	1	2
Tuberculous disease of the knee,	3	—	3
Deformity following tuberculous disease of the hip,	3	2	5
Infantile paralysis,	11	7	18
Rhachitic deformity,	4	7	11
Spastic paralysis,	9	3	12
Progressive muscular dystrophy,	5	—	5
Thoracic deformity,	5	2	7
Scoliosis,	2	3	5
Ankylosis of knee joint,	1	—	1
Double club hands, with congenital absence of radius,	1	—	1
Traumatic deformity of femur,	1	—	1
Amputation of left femur,	1	—	1
Chronic arthritis of both knees,	1	—	1
Excision of knee joint,	—	1	1
Tuberculous dactylitis,	—	1	1
Knock-knees and flat foot,	1	—	1
Tuberculosis of pelvis, spine and knees,	1	—	1
Extensive osteo-myelitis,	—	1	1
Round shoulders,	1	—	1
Ankylosis of elbow joint,	1	—	1
Amputation of both legs below knees,	1	—	1
Post-operative deformity of hip,	—	1	1
Totals,	70	34	104

OFFICERS AND THEIR SALARIES.

John E. Fish, M.D., Superintendent and Treasurer, . . .	\$2,500 00
Alfred A. Fenton, M.D., Assistant Physician, . . .	400 00
Mary W. Wentworth, Clerk,	600 00
Mary B. Robinson, Head Nurse,	700 00
Carolyn B. Hatch, Teacher, per month,	40 00
Olive G. Haszard, Instructor in Sloyd, per month, . . .	35 00
Charlotte W. Hackett, Housekeeper, per month, . . .	30 00
Joseph A. Cummings, Engineer,	900 00

VALUATION.

Nov. 30, 1908.

Real Estate.

Land, 65 acres,	\$11,500 00
Administration building, two dormitories and power house,	147,184 08
Stable,	3,640 46
Portable hog cots,	50 00
Three isolation houses,	751 00
Total,	<hr/> \$163,125 54

Personal Estate.

Live stock on the farm,	\$1,147 00
Produce of the farm on hand,	97 00
Carriages and agricultural implements,	1,076 90
Machinery and mechanical fixtures,	6,562 35
Beds and bedding in inmates' department,	2,809 07
Other furniture in inmates' department,	952 91
Personal property of State in superintendent's department,	1,765 92
Ready-made clothing,	887 25
Dry goods,	210 36
Provisions and groceries,	459 67
Drugs and medicines,	20 00
Fuel,	917 70
Library,	98 75
Other supplies undistributed,	8,275 37
Total,	<hr/> 25,280 25
	<hr/> \$188,405 79

TREASURER'S REPORT.

To the Trustees of the Massachusetts Hospital School.

I respectfully submit the following report of the finances of the Massachusetts Hospital School for the year ending Nov. 30, 1908:—

RECEIPTS.

From State Treasurer for current expenses,	\$25,473 94
From State Treasurer on account of appropriation under Acts of 1904, chapter 446,	61,678 50
From State Board of Charity for board of minor wards,	1,305 56
From cities and towns for the support of patients,	858 11
From individuals for the support of private patients,	664 19
Interest on deposits,	27 53
For clothing furnished private patients,	6 08
. Total receipts,	<u>\$90,013 91</u>

EXPENDITURES.

Salaries, wages and labor:—

Pay roll,	\$11,307 86
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Food:—

Butter,	\$468 88
Beans,	41 28
Bread and crackers,	40 89
Cereals, rice, meal, etc.,	133 76
Cheese,	29 95
Eggs,	396 56
Flour,	425 36
Fish,	185 14
Dried and fresh fruit,	363 86
Meats,	1,327 92
Milk,	907 55
Molasses and syrup,	28 93
Sugar,	272 26
Tea, coffee, broma and cocoa,	93 15
Vegetables,	337 45
Sundries,	204 17
	<u>5,257 11</u>

<i>Amount carried forward,</i>	\$16,564 97
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Amount brought forward, \$16,564 97

Clothing and clothing material:—

Boots, shoes and rubbers,	\$209 04
Clothing,	449 01
Dry goods for clothing, and small wares,	165 05
Furnishing goods,	72 21
Hats and caps,	6 24
Leather and shoe findings,	54 88
Sundries,	2 65

959 08

Furnishings:—

Beds, bedding, table linen, etc.,	\$15 86
Brushes, brooms, etc.,	23 64
Carpets, rugs, etc.,	4 20
Crockery, glassware, cutlery, etc.,	2 70
Furniture and upholstery,	4 37
Kitchen furnishings,	19 11
Sundries,	75

70 63

Heat, light, and power:—

Coal,	\$3,351 47
Oil,	55 63
Sundries,	29 38

3,436 48

Repairs and improvements:—

Doors, sashes, etc.,	\$0 75
Electrical work and supplies,	5 93
Hardware, iron, steel, etc.,	98 46
Lumber,	31
Machinery, etc.,	80
Paints, oil, glass, etc.,	109 18
Plumbing, steam fitting and supplies,	134 42
Roofing and materials,	21 18
Mechanics and laborers (not on pay roll),	55 24
Sundries,	89 02

515 29

Miscellaneous:—

Books, periodicals, etc.,	\$14 90
Chapel services and entertainments,	69 13
Freight, expressage and transportation,	321 86
Gratuities,	25
Ice,	209 73
Labor (not on pay roll),	1 28
Medicines and hospital supplies,	615 31

Amounts carried forward, \$1,232 46 \$21,546 45

